CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, January 27, 1910.

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RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

BEAVER VALLEY & NORTHWESTERN.—C. H. Holmes, Secy., Gage, Okla., advises us that date is uncertain for letting contracts for building this line. It will be about 400 miles in length, running from Oklahoma City, Okla., to La Junta, Colo. It is proposed to start construction at Hooker, Okla. As noted on Dec. 30, it is planned to build between Gage and Hooker, 105 miles, this year. Survey is partly made and right-of-way partly secured. Bonds will be issued. J. W. Webb, Beaver City, Okla, is Pres. Noted on Nov. 4, 1909.

BUCKHANNON & NORTHERN.—The County Court, Morgantown, W. Va., on Jan. 18, granted a franchise to the B. & N. R. R. Co. The final franchise is practically the same as the original draft passed by the County Court recently and an order has been entered making the maps and profiles showing the various distance and locations, a matter of record.

CYNTHIANA & PARIS.—This company plans to build a line about 14 miles long from Cynthiana to Paris, Ky., via Lair, Shawhan and Ruckerville. Several small bridges will be required; also a 1,200-ft. crossing of the South Licking River. Robert H. Rees, of Cynthiana, Ky., is Engr.-in-Charge.

ESTACADO & GULF.—This company plans to build and put in operation 100 miles of line during 1910, from Roby, in Fisher County, Tex., westward, it is stated. W. A. Butts is Pres., and T. H. Landon, Ch. Engr., both at Roby.

FORT SMITH & WESTERN.—Preliminary arrangements are being made and company is taking up a former survey and getting ready to finance and build this line from El Reno, Okla., southwest to a point on the Kansas City, Mexico & Orient Ry., either at Sentinel or at Dill, Okla., a distance of about 100 miles. The Fort Smith & Western R. R. now runs from Fort Smith, Ark., to Guthrie, Okla., 217 miles. W. M. Bushnell is Gen. Mgr., Fort Smith.

GREAT NORTHERN.—See Vancouver, Victoria & Eastern Ry. & Navigation Co.

GULF COAST & PROVIDENT CITY.—Company's charter has been approved in Texas. This railway will be a standard-gage line, about 60 miles long, extending from Pierce, Tex., on the Southern Pacific Ry., northerly five miles to a connection with the Santa Fe at Glenflora, west of the Colorado River; thence it will run northwesterly 32 miles to Provident City, the new town which the Provident Land Co. of Kansas City is building. From Provident City the new road will extend 26 miles to Halletsville, there connecting with the San Antonio & Aransas Pass Ry. Actual construction will commence in about 30 days and it is expected the road will be finished within seven months as far as Provident City. Emil Reinbold, of Kansas City, is Pres.; Carey Shaw is Gen. Mgr., with headquarters at Houston, Tex. Noted on Dec. 30.

IOWA & OMAHA SHORT LINE.—An extension will be built from Treynor to Oakland, in Pottawattamie County, Iowa, when the Council Bluffs-Treynor line is completed. Geo. W. Adams is Pres., Council Bluffs, Iowa.

KANSAS NORTHWESTERN—Company announces that it wishes correspondence with strong construction company with financial connections enabling it to place large portion of the bond issue of the railway company. O. W. Dawson, Secy., Great Bend, Kan.

According to press report, the contract to build and equip the Kansas Northwestern Railroad, a distance of approximately 330 miles, has been awarded to the ELECTRIC TRACTION CONSTRUCTION CO., Commerce Bldg., Kansas City, Mo. The road will be constructed first from Great Bend to Calastia, Kan., and then extended to Wichita or Oklahoma Cty, south; and Bunkleman, Neb., north. Noted on Dec. 30.

MOUNTAIN, VALLEY & PLAINS.—Grading has been started by J. H. Conlon, Ch. Engr., between Guthrie and Kingfisher, Okla. Temporary headquarters will be at Guthrie. Noted on Dec. 23.

NEW ORLEANS GREAT NORTHERN.—Regarding the reports that an extension from Columbia, Miss., eastward for a distance of about 15 miles, will be built this year, N. G. Pearsall, Gen. Mgr., Bogalusa, La., advises us that no extension is contemplated at this time and that no steps have been taken. Noted on Dec. 30.

OREGON & WASHINGTON.—See item under Manufacturing Plants.

PITTSBURG & GREAT LAKES CONNECTING RY.—This company, with offices in the Fulton Bldg., Pittsburg, has a corps of engineers in the field making final surveys for the construction of 42 miles of road from Ellwood City to Raymilton, Venango County, Pa. This railway will form a connecting line between several trunk lines and will shorten the distance between Pittsburg and the northeastern points on the New York Central R. R. Co.'s lines by about 60 miles. The road will require the construction of two bridges; also three tunnels, 400, 1,200 and 2,200 ft. long, respectively. Plans have been completed for the construction of about twelve miles of the line to connect the Pittsburg & Western R. R. (B. & O.) at Ellwood City, with the Western Allegheny R. R. at Portersville, to be followed later by the extension to connect with the Bessemer & Lake Erie R. R. at Grove City, and the Lake Shore & Michigan Southern Ry., at Raymilton. Work on the construction of the road and the development of the coal land will be started early in the spring. Noted on Jan. 6.

PORTAGE RY.—Bids will be received by the State Board of Portage Ry. until Feb. 1 at the office of Newell, Gossett & Walsh, 32 Washington Bldg., Portland, Ore., for the grading, bridging and tracklaying necessary in the construction of the extension of the Portage Ry. from Big Eddy to The Dalles, a distance of 4.05 miles.

PORTLAND, LAKEVIEW & EASTERN.—E. S. Robinson, Engr., 319 Henry Bldg., Portland, Ore., advises us that "as yet no steps toward securing plans, etc., have been taken as the company has just been organized." Noted fully on Dec. 23.

ST. LOUIS, BROWNSVILLE & MEXICO.—Amendment to the charter of the St. Louis, Brownsville & Mexico R. R. Co., which recently passed into control of the Frisco System, has been filed with the Railroad Commission of Texas. It provides for building a branch line from Bloomington to Port O'Connor, 40 miles, and extending the Harlingen branch from Sam Fordyce up the valley of the Rio Grande to Roma, 35 miles. The construction of the branch line to O'Connor is already in progress.

TUSCARORA R. R.—A charter has been granted this company in Maryland to build a line about 45 miles long from near Hancock, Md., northward into coal fields in Pennsylvania. It will run between Blairs Mills, Pa., and the mouth of Licking Creek, on the Potomac River. This will be an extension, it is stated, of the Tuscarora Valley R. R., a narrow-gage line, 27 miles long, from Port Royal, on the Pennsylvania R. R., to Blairs Mills. N. H. Suloff is Gen. Mgr. of the Tuscarora Valley R. R. Co., at Port Royal, Pa. The Tuscarora Terminal R. R. Co. recently opened stock subscription books at 1109-19 Calvert Bldg., Baltimore, among the incorporators being E. Allan Sauerwein, Jr., Victor I. Cook and James S. Murphy.

VANCOUVER, VICTORIA & EASTERN.—Contract has been awarded to FOLEY, WELCH & STEWART of Spokane, Wash., for grading the Vancouver, Victoria & Eastern line, from Princeton, B. C., west of Tulameen, 17 miles, and from Abbottsford east to Chilliwack, 20 miles, it is reported.

ELECTRIC RAILWAYS.

WASHINGTON, N. J.—The Easton & Washington Traction Co., it is reported, has completed plans for an extension of its line to Lake Hopatcong, N. J. The line now connects Easton, Pa., with Phillipsburg, Stewartsville, New Village, Broadway, Washington, Port Colden and Port Murray, all in Warren County, N. J. An extension is also proposed between Belvidere and Clinton, N. J. W. O. Hay is Mgr., Easton, Pa.

JOHNSTOWN, PA.—H. J. Crowley, Gen. Mgr. of the American Railways Co., Philadelphia, advises us that "this company has no interest in the promotion or construction of the proposed electric railway connecting Johnstown with Altoona. This company controls the street railway lines in both of the above cities, and it is quite probable that the new road when built will operate its cars over the existing tracks in the terminal cities. Geo. U. G. Holman is Gen. Mgr. of the Johnstown & Altoona R. R. Co., with offices in Johnstown, Pa." Noted on Jan. 6.

SLIPPERY ROCK, PA.—We are officially informed that the Slippery Rock & Grove City St. Ry. Co. will let contracts in about 60 days for building its line between Slippery Rock and Grove City, nine miles. Plans and specifications are on file with S. L. McClure, Gen. Mgr., at Grove City. Surveys have been completed and eight miles of right-of-way secured. There will be 80,000 cu. yds. of earth excavation. J. P. Barr is Pres. Noted on Jan. 6.

RENOVO, PA.—The Renovo & Gleasonton St. Ry. Co. announces that it expects to begin work about April 1 on its projected 5-mile electric railway from Renovo to Gleasonton, via Farwell and North Bend. Franchises have been obtained from the borough and townships through which the line will pass. E. W. Hess is Pres. and Engr., Clearfield, Pa. Noted on Jan. 13.

MARS, PA.—Contracts will be let soon by the Rochester & Mars St. Ry. Co. for the construction of this proposed electric railway. It will extend from the Baltimore & Ohio R. R. depot at Mars, to Rochester, a distance of 17 miles. It will connect with the Pittsburg & Butler Street Railway; with the Pittsburg, Harmony, Butler & New Castle Railway, and with the Beaver Valley Traction Co. J. H. Barrett, 331 Fourth Ave., Pittsburg, is Pres. and Ch. Engr. Noted on July 8 and Sept. 30, 1909.

FREEBURG, PA.—The Sunbury & Freeburg St. Ry. Co. has been chartered to build a line five miles long between Selinsgrove and Freeburg. The capital of the company is $30,000. The incorporators are W. H. Lyons, of Harrisburg; Guy Webster, of York; B. A. Musser, of Scranton, and C. M. Clement and W. H. Greenough, of Sunbury. Messrs. Greenough and Musser are officials of the Sunbury & Selinsgrove St. Ry. Co., an electric line connecting those places.

WILKES-BARRE, PA.—The Wilkes-Barre Ry. Co. has been incorporated to lease the property of the Wilkes-Barre & Wyoming Valley Traction Co., and the Wilkes-Barre, Dallas & Harvey's Lake Ry. Co. for a long term of years. Company began operating the property on Jan. 1, 1910. T. A. Wright, Gen. Mgr., 8 West Market St., Wilkes-Barre, announces that it is anticipated that some important improvements will be made during the coming year.

SCRANTON, PA.—Application for a charter for the Scranton & Binghamton Traction Co. will be made at Harrisburg, Pa., on Feb. 7. The incorporators are W. L. Connell, T. J. Foster, F. W. Woolerton, T. A. James, C. Paul Hagenlocher, J. K. Griffiths and C. H. Campbell, all of Scranton. Company will be capitalized at $5,000,000. The new company will take over the property of the Northern Elec. St. Ry. Co., an electric railway connecting Scranton and Factoryville, via Dalton and Waverly. From Dalton the Scranton & Binghamton Traction Co. proposes to build a new line to Gelatt, Ararat and Susquenanna, Pa., and thence to Binghamton, N. Y.

WINSTON-SALEM, N. C.—On Jan. 4, at a meeting of the original projectors of the North Carolina Traction Co., organization was effected and the following officers were elected: E. Hillman, Aberdeen, N. C., Pres.; J. W. Krafft, Indianapolis, Ind., Secy.; E. L. Krafft, Indianapolis, Ind., Gen. Supt.; Dr. H. P. MacKnight, Southern Pines, Gen. Mgr.; W. L. Law, Pres. of the Law Engineering Co., Rock Hill, Ch. Engr. As noted on Dec. 23, this railway, which will be about 80 miles long, will run from Winston-Salem to points in North Carolina and to Stuart, Va.

ATLANTA, GA.—The Georgia Ry. & Electric Co. plans to spend about $100,000 during 1910, it is announced, for various improvements. G. W. Brine is Vice-Pres. and Gen. Mgr., Atlanta.

SALEM, OHIO.—We are officially advised that Peter McCave, Washingtonville, O., is promoting a plan to organize a company for the construction of an electric railway connecting Lisbon, Salem and Youngstown, via Washington ville and Canfield, a distance of 34 miles.

GARY, IND.—The Gary, Hobart & Valparaiso Traction Co. will begin construction work this spring on its proposed line from Gary, Ind., southeast via Glenpark, New Chicago, Hobart and Wheeler to Valparaiso, about 25 miles. The work will include several small trestles and one concrete undergrade crossing. The company also plans to put up car barns and a power-house. J. S. Hopkins is Pres., 616 Corn Exchange Bank Bldg., Chicago; B. A. Mapledoram, Hobart, is Ch. Engr. Noted on Aug. 19, 1909.

EAST ST. LOUIS, ILL.—The East St. Louis, Columbia & Waterloo Ry. Co. has surveys completed for the construction of its proposed line from East St. Louis, Ill., to Waterloo, Iowa, a distance of 23 miles. Baxter Brown, 610 Laclede Bldg., St. Louis, Mo., is Ch. Engr.; H. Reichenbach, Columbia, Ill., is Secy. Officially noted on March 25 and Sept. 2, 1909.

CHICAGO, ILL.—The Chicago, Bloomington & Peoria Ry. Co. has been incorporated for the purpose of building an electric railway from Chicago to Bloomington and Peoria, passing through the Counties of Cook, Du Page, Will, Kendall, Grundy, La Salle, Livingston, Woodford, Tazewell, McLean and Peoria. Principal office, Chicago. Capital stock, $25,000. Incorporators and first board of directors: Jerome J. Danforth, 94 La Salle St.; Charles S. Sollars, Averne A. Hyde and Frank M. Capp, 150 52d St., all of Chicago, and Virginius L. Garnett, of Highland Park, Ill.

GENESEO, ILL.—Active construction work on the lines of the Rock River Traction Co. will be commenced at once. At the annual meeting of the company, held recently in Geneseo, a representative of the NORTHWESTERN ENGINEERING & CONSTRUCTION CO., of Milwaukee, Wis., appeared before the board of directors and gave personal assurance that the work would be commenced between Sterling and Prophetstown this month. The work is to be pushed as quickly as possible, the line being extended from Sterling to Prophetstown, then to Geneseo, and then to Moline. Officers are: Pres. and Gen. Mgr., Hugh W. Cole, of Geneseo; First Vice-Pres., J. H. O'Brien, of Geneseo; Second Vice-Pres., W. E. Tuller, of Morrison; Secy., Fred. W. Cole, of Prophetstown; Assistant Secy., William Harbaugh, of Geneseo; Treas., C. F. Luther, Geneseo.

MINNEAPOLIS, MINN.—The directors of the Minneapolis, St. Paul, Rochester & Dubuque Electric Traction Co. have voted $650,000 for construction and equipment of the Minneapolis-Northfield line. As noted on May 27, 1909, we were officially notified that they had "just closed a deal with Eastern capitalists, for $4,000,000 with which to build and equip this line from Minneapolis to Rochester, Minn. Of the first 40 miles, from Minneapolis to Northfield about 30 miles are graded. H. F. BALCH has the contract on the balance of this part of the line. The contract on the line south of Northfield has not been let yet. F. G. L. Hunt is Ch. Engr., Minneapolis." When completed from Minneapolis to Dubuque, Iowa, this railway will be 233 miles long. M. W. Savage is Pres., Minneapolis.

BELLEVILLE, KAN.—The Motor Grand Traction Co. has been chartered to build a railway, to be operated by gasoline or electricity, from Belleville via Concordia, Minneapolis, Salina, Canton and Newton to Wichita, a distance of 150 miles. It will extend through Republic, Cloud, Ottawa, Salina, McPherson, Harvey and Sedgwick Counties. Capital stock, $1,000,000. Headquarters, Belleville. Incorporators: E. S. Alnutt, E. N. Van Hosen, G. L. Litel and Roy S. Johnson, of Belleville, and W. L. Hope, of Fairbury.

BILLINGS, MONT.—G. H. Kesselhuth, Secy. of the Eastern Montana Elec. Ry. Co., Billings, advises us that construction contracts will be let late this spring. Surveys have been held back by inclement weather. Right-of-way is partly secured and capital has been promised for building the line which is to extend from Billings to Red Lodge, via Laurel, 80 miles. Noted fully on Jan. 6.

SHAWNEE, OKLA.—We are officially advised that surveys have been made by the Shawnee Elec. Ry. Co. for its proposed line between Shawnee and Oklahoma City, Okla., 40 miles; bonds have been sold and right-of-way secured. Date has not been set for letting construction contracts. C. T. Edwards is Pres., Shawnee; W. Sheridan Kane, 1 Madison Ave., New York, is Eastern Representative. Noted fully on Jan. 6.

The Shawnee Electric Railway Co. has amended its charter to increase the capital from $100,000 to $1,300,000.

SPOKANE, WASH.—Right-of-way has been secured and surveys are under way for the Spokane, Walla Walla & Western Ry. E. M. Symonds, Spokane, is Pres. As noted on Sept. 2, this company was incorporated to take over the holdings of the Columbia & Walla Walla Traction Co., which planned to build an electric railway from Dayton to Wallula, a distance of 60 miles. Capital stock, $3,000,000. M. S. Parker is Ch. Engr., Spokane.

OAKLAND, CAL.—Application for a franchise for an electric railroad has been made to the Board of Supervisors by the Southern Pacific Co. The franchise is for a small connecting line in Albany and Berkeley, to form part of the extension into that part of Berkeley known as Northbrae. The application was referred to the Franchise Committee. A. H. Babcock is Elec. Engr., S. P. Co. Noted on Dec. 23.

LOS ANGELES, CAL.—On Jan. 6, at a meeting of the stockholders of the Los Angeles-Pacific Co., 431 South Hill St., it was voted to issue $20,000,000 of bonds, about $10,000,000 of which will be used for additions and betterments to the property of the company. Of this amount it is estimated that $2,500,000 will be required for the construction of the company's proposed 4-mile subway. The remainder of the bonds will be used to retire outstanding issues. R. P. Sherman is Gen. Mgr., 316 West Fourth St.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

PORTLAND, ME.—We are officially advised that bids were received as follows on Jan. 20 by Capt. C. F. Humphrey, Constructing Q. M., U. S. A., 655 Congress St., Portland, for construction and remodeling electric light system at Fort Williams: John W. Burrowes Co., Portland, constructing brick substation, $1,045; G. H. & E. E. Lowell, Portland, constructing and remodeling overhead lines, $14,452; A. D. Granger Co., 90 West St., New York, constructing and remodeling overhead lines, $7,817; McCay Engineering Co., 9 East Lexington St., Baltimore, Md., constructing and remodeling overhead lines, $9,480; alternate bid, $8,689; furnishing transformers and watt meters, $1,063; alternate bid, $1,164; Westinghouse Electric & Mfg. Co., 121 East Baltimore St., Baltimore, furnishing transformers and watt meters, $1,174; furnishing apparatus for substation, $1,419; Alfred J. Hixon, Boston, Mass., constructing and remodeling overhead lines, $9,351; furnishing transformers and watt meters, $1,211; apparatus for substation, $1,691; furnishing motor-driven engine lathe, $861; constructing brick substation, $550.

WARREN, N. H.—Plans are being prepared by the Warren Water & Light Co. for the removal of its power plant from Warren to Wentworth, four miles distant, during the coming year, where it is proposed to develop water power to operate the plant. The company will supply electricity to Warren, Wentworth and Rumney for lamps and motors. Edgar S. Carbee is Mgr.

VERNON, VT.—Plans are being prepared for the installation of three additional units in the power station of the Connecticut River Power Co. in Vernon, to increase the output of the plant from 15,000 to 24,000 HP. Estimated cost, $150,000. H. I. Harriman is Pres.

MIDDLEBORO, MASS.—The Municipal Light Commissioners have decided to extend the lighting service to North Middleboro, about five miles distant if sufficient business is guaranteed to pay for extending the line.

SPRINGFIELD, MASS.—All bids for heating and ventilating, electric work and plumbing for the auditorium, tower and passage and municipal office building of the new municipal buildings to be erected on Court St., have been rejected. New bids will be asked. George Dwight Pratt is Chn. Municipal Building Comn.

WESTFIELD, MASS.—The stockholders of the Westfield Power Co. on Jan. 12 voted to increase the capital stock of the company from $82,500 to $100,000. George E. Dunbar is Mgr. and Ch. Engr.

GAYLORDSVILLE, CONN.—The New Milford Power Co. has increased its capital stock from $35,000 to $100,000 and plans are being prepared by the company for improvements and extensions to the plant. Frederick Miles is Supt., Gaylordsville.

GREENWICH, CONN.—The city is considering changing the present street lighting system from arc to tungsten lamps, and propose to replace each arc lamp with four tungsten lamps. The price paid for arc lamps is $100 each per year. The new lamps will cost $24 per lamp per year. Street lighting contract will expire this month. Electricity for operating the system is furnished from the power-house on Steamboat Road and it is understood that the Connecticut company proposes to erect a new power-house and install new equipment at the Steamboat Road plan at once.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Feb. 8, by John W. Brannan, Pres. Bd. of Trustees, Bellevue and Allied Hospitals, for all the labor and materials required for the furnishing and installing of electric and gas lighting fixtures in the Pathological Department and Male Dormitory of the New Bellevue Hospital, situated on First Ave. and bounded by 26th and 27th Sts., Boro. Manhattan, City of New York.

NEW YORK, N. Y.—The Public Service Commission, First District, has authorized the Bronx Gas & Electric Co. to issue $643,000 of bonds for the purpose of retiring $500,000 now outstanding and for improvements.

NIAGARA FALLS, N. Y.—The ALLIS-CHALMERS CO., of Milwaukee, Wis., has been awarded contract by the Niagara Falls Hydraulic Power & Mfg. Co. for two additional revolving field generators, each 6,500-KW., 12,000-volt, 25-cycle, to be hydraulically driven, to be installed in the lower power-house, Niagara Falls.

BUFFALO, N. Y.—Plans are being prepared by the Cleveland Engineering Co. for the construction of a large power plant for the new technical school in Buffalo, equipment to include furnaces with mechanical stokers, tubular boilers, two Corliss engines, with a total rating of 500 HP. electric generators, heaters, pumps, motors, etc.

SCHENECTADY, N. Y.—The SCHENECTADY ILLUMINATING CO. has been awarded contract by the Board of Contract and Supply for furnishing electricity for lighting the city for a term of five years, at $80 each per year for arc lamps and 5 cts. per KW.-hr. for electricity for lighting the public buildings.

COLLEGE HILL, PA.—The Pittsburg & Lake Srie R. R. Co. will begin the erection of an electric light and power plant at the College Hill round-house next spring to furnish arc and incandescent light for its passenger station, freight depots and yards from here to the Ohio River, and also to light the big bridge now being built across the Ohio River at Beaver. The plant will also furnish electric power. T. B. Yoke is eGn. Mgr., Pittsburg, Pa.

LAUREL, DEL.—The Sussex Light & Power Co., which recently acquired the plant of the Laurel-Seaford Electric Co., will be in the market about April 1 for a 300-KW. generator and a 450-HP. tandem-compound engine with jet condenser. Charles S. Stephenson is Mgr.

WASHINGTON, D. C.—Bids were received as follows on Jan. 21 by the Department of the Interior for furnishing an engine and generator in the Asylum for the Insane, Washington: D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, Item A, including 450 K. V. A. generator, and Item B, with single set bus bars, $18,500; tandem-compound engine and 500 K. V. A. generator, add $300; Item B, with double set bus bars, add $300. amount allowed for old machinery, $2,000. Westinghouse Electric & Mfg. Co., 121 East Baltimore St., Baltimore, Md., $16,223. General Electric Co., Continental Trust Bldg., Baltimore, tandem-compound engine and 450 K. V. A. generator, $1,590; Item B, with single set bus bars, $2,331; Item B, with double set bus bars, $2,406; allowed for old machinery, $1,850. McKay Engineering Co., 9 East Lexington St., Baltimore, Item A, tandem-compound engine and 450 K. V. A. generator, $19,450, $19,250, $23,050, $24,450; same, with 450 K. V. A. generator, $19,950, $20,450; Item B, with single bus bars, $2,650; Item B, with double set bus bars, $2,750.

WEST POINT, GA.—See item under Manufacturing Plants.

BINGHAMTON, TENN.—Preparations are being made by the Binghamton Light & Power Co. to double the output of the plant within the next 60 days. W. M. Tucker is Mgr.

NASHVILLE, TENN.—Fisk University is contemplating the installation of a central heating and lighting plant. George A. Gates is Pres.

SHOALS, IND.—The Shoals Power & Light Co. has been organized with capital stock of $50,000 to build and equip a power plant for the generation and distribution of electricity for light and power purposes and also a plant for manufacturing purposes. Henry A. Mansfield, S. A. Fleschen and Fred. M. Bachman are directors.

INDIANAPOLIS, IND.—The Indiana Power Co., with a capital stock of $25,000, has been organized to build a power-house and factory in this city. Albert Thompson, D. A. Johnson, R. B. Spillman and J. R. Raub are directors.

ESCANABA, MICH.—The Escanaba Power Co. is contemplating the construction of another dam this year. The company furnishes electrical energy for operating the Escanaba municipal electric plant and the Escanaba Electric Street Ry. Co. system and for electricity in Gladstone and Wells, Mich. P. L. Utley is Pres. and Mgr.

PORT WASHINGTON, WIS.—The Milwaukee Northern Ry. Co. is considering the installation in its power station at Port Washington during the year of an additional gas engine and dynamo with a rating of 1,500 HP.

DE PERE, WIS.—Arrangements are being made by the De Pere Electric Light & Power Co. to equip its plant to take electricity from the plant of the Green Bay Traction Co.'s plant, five miles distant. The company is now installing a 150-KW. rotary converter, three 100-KW. transformers and alternating-current motor circuit. Electricity will be taken at 15,000 volts, 3-phase, 25 cycles. L. L. Tessier is Supt.

CLINTONVILLE, WIS.—Extensions and improvements to the municipal electric light plant are being considered,, including the installation of a district steam or hot-water heating system; also purchasing power to operate the plant, or purchasing a water power and developing same, or making improvements to the present plant to increase the output. John Kuester is Supt.

BURLINGTON, IOWA.—The Chicago, Burlington & Quincy R. R. Co. may build and operate its own electric power plant in this city at an early date. G. A. Laubenfels, Burlington, is District Engr.

ERIE, KAN.—Bids will be received until 3 p. m., Feb. 17, for the construction of electric lighting plant, water-works and sewers. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

LINCOLN, NEB.—Plans are being considered by the City Council for extensions and improvements to the municipal electric light plant. It is proposed to increase the output of the plant to enable the city to furnish electricity for commercial lighting. The power station will be enlarged and additional machinery, including another generator, will be installed. Estimated cost, $32,500.

WILBER, NEB.—The managers of the municipal electric light plant are considering the establishment of a day service in the spring. E. E. Dunder is Supt.

SHERIDAN, WYO.—Bids are asked by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., until 3 p. m., Feb. 10, for supplying light fixtures for the U. S. public building here.

KALISPELL, MONT.—W. H. Griffin and associates, of Kalispell, are organizing a company for the purpose of constructing electric lines from Kalispell to rural communities. Capital, $50,000.

KANSAS CITY, MO.—The Union Pacific R. R. Co. is contemplating the installation of new electric interlocking plants at seven places here. J. O. Brinkerhoff is Supt., Kansas City.

SLATER, MO.—Plans are being considered for enlarging and improving the municipal electric light plant. Nothing definite has been decided upon as yet. L. E. Shepherd is Mgr.

OZARK, MO.—The Water Power Light Co. is contemplating increasing its capital stock and issuing bonds, proceeds to be used to retire present indebtedness and provide funds for extensions to double the output of the plant within the next 18 months. S. E. Bronson is Secy. and Mgr.

SAN BENITO, TEX.—Plans are being made by the San Benito Land & Water Co. for installing an electric light and power plant to furnish electricity for lamps and to operate the pumping station, to be operated by water power. Plans are being prepared by H. H. Sutton, of the Stone & Webster Engineering Corporation, Stone & Webster Bldg., Boston, Mass.

CROCKETT, TEX.—The plant and holdings of the Citizens' Ice & Light Co. have been purchased by C. L. Edmiston. The new owner will make improvements to the plant. Estimated cost, about $7,000.

SAN ANTONIO, TEX.—The Pioneer Flour Mills Co. has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 16 × 32 × 36 tandem-compound condensing engine with transmission machinery.

ELDORA, COLO.—The Highland Power Co., lately incorporated, contemplates the construction of a large hydro-electric power plant this spring on the west branch of middle Boulder Creek above Eldora. Estimated cost, $1,000,000. The company will take over the holdings of the Highland Mary Mining & Milling Co. and proposes to supply electricity for mining, agriculture and domestic purposes. Capital, $5,000,000. The directors are: J. H. Bair, Pres.; H. A. Andrew, H. W. Brougher, E. A. Austin, J. E. Slothower and J. Frank Turner.

BOULDER, COLO.—Surveys are being made for the construction of a hydro-electric power plant, which will utilize the water power of Left Hand and Jain Creeks. The power station will be located a short distance below where the creeks unite. Sites have been obtained and work will commence in the spring. About 1,000 HP. will be developed, which will be utilized in the mining properties in the district tributary to the proposed plant. George W. Teal is interested.

*TACOMA, WASH.—Bids are asked until 9 a. m., Feb. 21, by H. T. McGregor, Comr. Pub. Wks., for constructing the headworks and tunnel for a hydroelectric power plant on the Nisqually River. The work will consist of a concrete diverting dam, intake and settling channel, with the necessary screens and gates, and a concrete-lined tunnel 10,015 ft. long. Plans and specifications are on file at the office of Engineering News, New York. Estimated cost, $657,575. Frank C. Kelsey is Ch. Engr., City Hall, Tacoma.

EUGENE, ORE.—Bids are asked until 3 p. m., Feb. 10, by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., for supplying light fixtures for the U. S. public building here.

CHICO, CAL.—The City Trustees have awarded contract for lighting the streets and public buildings to the PACIFIC GAS & ELECTRIC CO. for one year, at $84 each per year for arc lamps and 16-c. p. incandescent lamps at $6.61 per lamp per year.

LOS ANGELES, CAL.—Contract for lighting the streets for one year has been awarded by the Board of Public Works to the LOS ANGELES GAS & ELECTRIC CO. Cost, about $220,000.

REDDING, CAL.—The Mount Shasta Power Co. filed articles of incorporation here on Jan. 6. The same articles were filed in San Francisco a short time ago. The articles were filed at Redding because Shasta County is the field of operations. The company at the same time filed deeds and agreements giving it title to a location of 200,000 ins. of water in Pitt River, in what is known locally as Big Bend. The company, as the successor of H. V. Gates, R. E. Johnson and A. J. Treat, proposes to divert all this water through a tunnel seven miles long, conveying it through the mountains and delivering it at the tunnel outlet at such an elevation that 250,000 HP. can be developed electrically. The directors of the company are: R. E. Johnson, San Francisco; John Coffe Hays, Visalia; William A. Cooper, San Francisco; Jesse W. Lilienthal, San Francisco; H. V. Gates, Hillsboro, Ore.; Albert Raymond and A. J. Treat, San Francisco. Capital, $1,000,000.

RIVERSIDE, CAL.—The Board of Supervisors, Riverside, have sold to the Beaumont Gas & Power Co. franchise to lay and operate for 50 years, gas mains, for heat, power and light, to erect poles, wires, etc.

MONTREAL, QUE. — The DOMINION BRIDGE CO., of Lachine, Que., has been awarded contract for structural steel for power racks and tail race bridge by the Canadian Light & Power Co. The JOHN McDOUGALL CALEDONIAN IRON WORKS, Traders' Bank Bldg., Toronto, Ont., received the contract for cast-iron wheel chamber drain pipe in connection with the above company's plant for the development of power at St. Timothee.

BRIDGEBURG, ONT.—The Canadian Niagara Power Co. will erect a power plant here. Estimated cost, $60,000.

FORT WILLIAM, ONT.—The ratepayers have voted to spend $19,000 for lamps and line work in connection with the electric light system.

MIDLAND, ONT.—Bids are asked by W. Finlayson, Secy., Cimcoe Ry. & Power Co., Ltd., Midland, until Feb. 1 for the following: For generating station at Big Chute, Severn River: Hydraulic equipment, penstocks, electrical equipment; for 27-mile transmission line; wire, insulators, crossing towers; for receiving station at Midland; electrical equipment. Specifications for the above may be seen at the office of the Secretary, Midland, or at the office of C. H. & P. H. Mitchell, Engrs., Traders' Bank Bldg., Toronto, Ont.

OTTAWA, ONT.—Application is being made to incorporate the Ottawa & Montreal Transmission Co., capital, $500,000, to construct and acquire water powers for generation of electricity. Christie, Greene & Hill are Solicitors, Ottawa.

MELVILLE, SASK.—Cushing & Weir have been granted a 10-year franchise to erect an electric light and power plant here. Estimated cost, $30,000.

VANCOUVER, B. C.—The British Columbia Electric Ry. Co. has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for two 2,000-KW., 1,800 r. p. m., 60-cycle, 3-phase, condensing steam turbo-generator units. The new equipment will be used in connection with extension of the service.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

NEW LONDON, CONN.—The New York, New Haven & Hartford R. R. Co. has submitted a proposition to the War Department through the engineering department at New London providing for the construction of a new double-track steel railroad bridge across the Thames River. Estimated cost, $500,000. Edward Gagel is Ch. Engr., New Haven.

ROCHESTER, N. Y.—Tentative plans for the construction of a reinforced-concrete bridge over the river at Central Ave., were submitted to the Mayor on Jan. 18 by Edwin H. Fisher, City Engr.

PHILADELPHIA, PA.—Bids were received by the Department of Public Works on Jan. 18, for Schedule A, superstructure of a steel beam and girder bridge, encased in concrete, at Wissahickon Ave., over the Richmond Branch of the Philadelphia & Reading Ry., 38th Ward. Owego Bridge Co., Owego, N. Y., $11,500, to be completed in five months; William A. Mundy, $20,954, five months; Penn Bridge Co., Beaver Falls, Pa., $16,500, five months; McNichol Paving & Construction Co., Philadelphia, $14,722, six months; M. & J. B. McHugh, $16,280, six months; Carey & Reed, $18,800, four months.

BADEN, PA.—Plans for a new bridge across the Ohio River, between Aliquippa and Baden, have been submitted to the War Department for approval. The structure will cost about $300,000 according to estimates. It is planned to issue $100,000 stock and $200,000 bonds to provide the funds, the bridge being designed by a private company.

NORRISTOWN, PA.—The Alan Wood, Iron & Steel Co. will erect a 2-track steel railroad bridge across the Schuylkill River, connecting its plant at Ivy Rock with the Hecksher furnace at Swedeland, to procure its supply of muck bars from the [illegible] furnaces. By the new arrangement the [illegible]-hearth furnaces at the steel plant can be charged direct with molten metal from the mouth of the furnace.

*READING, PA.—Bids will be received by A. L. Rhoads, County Controller, until 10 a. m., Feb. 10, for the erection of a reinforced-concrete arch bridge over Wyomissing Creek in Cumru Township, Berks County, to be known as Ruth's [illegible].

WASHINGTON, PA.—Bids are asked by the Commissioners of Washington and Greene Counties until Feb. 23 for construction of a bridge 99 ft. long across Ackley Creek, which is part of the line between Richhill and West Finley townships. J. H. Moffitt is County Controller, Washington.

WILMINGTON, DEL.—The Levy Court on Jan. 18 appropriated $3,500 for the construction of a bridge over White Clay [illegible].

BALTIMORE, MD.—Bids are asked until 11 a. m., Feb. 2, by the Board of Awards for the delivery of timber for Lights to Light St. drawbridge. O. F. [illegible] Harbor Engr.

RUSSELLVILLE, ALA. — The JOLIET BRIDGE & IRON CO., of Joliet, Ill., has secured contract for constructing a steel bridge over Little Bear Creek.

BRISTOL, TENN.—Bids are asked until Feb. 8 by the Street Committee for the construction of a steel or concrete bridge over Beaver Creek. James W. Mort is Clk. Erroneously given as Bristol, Va., last week.

BRYAN, OHIO.—Bids are asked until 11 a. m., Jan. 31, by R. H. Weaver, County Audr., for the construction of one steel bridge.

CHILLICOTHE, OHIO.—E. G. NAVE & CO., of Portsmouth, Ohio, have been awarded contract for the construction of a steel bridge here for the Norfolk & Western R. R. Co.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., Feb. 16, by the Cuyahoga County Commissioners for bridge work per Report 2570. John F. Goldenbogen is Clk.

SHELBYVILLE, IND.—The New York Central R. R. Co. has decided to build a new bridge across Flat Rock in this county. Contract will be let from the Cincinnati office.

JOLIET, ILL.—Plans and specifications for the construction of the viaduct over the tracks of the Elgin, Joliet & Eastern Ry. Co. at Jackson St. were received by the Board of Highway Commissioners on Jan. 18. The plans provide for a structure about 700 ft. in length. The span will extend for more than 100 ft. The specifications state that a 24-ft. wide roadway with 8-ft. wide sidewalks, will be constructed. Estimated cost, approximately $65,000.

LADYSMITH, WIS. — The MENASHA WOODENWARE CO. has secured contract for constructing a steel bridge over the Flambeau River here, at $12,500.

CRESTON, IOWA. — The STANDARD BRIDGE CO., of Omaha, Neb., has been awarded contract for the construction of county bridges during 1910.

MINNEAPOLIS, MINN.—The Minneapolis Park Board, Theodore Wirth, Supt., is having plans revised for the reinforced-concrete bridge No. 4 to be constructed on Park Drive. Estimated cost, $13,000. William P. Cowles, New York Life Bldg., Minneapolis, is Engineer and Supt. of Construction.

TOPEKA, KAN.—Bids will be received by C. B. Burge, City Clk., until Feb. 7 for constructing a bridge across Shunganunga Creek on Fillmore St.

FULLERTON, NEB.—Bids are asked until noon, Jan. 29, by G. Willson, County Clk., for erection and completion of steel bridges for Nance County for one year from date of contract.

KEARNEY, NEB. — The STANDARD BRIDGE CO., of Omaha, Neb., has been awarded the contract for furnishing the bridge work in Buffalo County during 1910.

BROOKINGS, S. DAK.—The IOWA BRIDGE CO. has been awarded contract for the construction of all bridges during the year 1910. Bids were opened on Jan. 5.

ST. LOUIS, MO.—Plans have been completed for the construction of a steel and concrete bridge on Kings Highway across the railroad tracks. Estimated cost, $500,000. Orof Mann, Washington University, St. Louis, Consult. Engr.

EDINA, MO.—Bids are asked until Feb. 9 by Ed. M. Randolph, Highway Engr., for the construction of several steel bridges.

MURFREESBORO, ARK.—The MEMPHIS BRIDGE CO. has been awarded contract by the county at $16,000 for the construction of two steel bridges, one across the Murfreesboro River at Murfreesboro and one over the Caddo River at Glennwood, both in Pike County. Bids were opened on Jan. 11. S. T. Thomson is County Engr.

DALLAS, TEX.—We are officially advised that bids were received as follows on Jan. 15 by the county for the construction of the Miller's Ferry bridge: (a) with wooden floor, (b) with concrete floor; Joliet Bridge Co., Joliet, Ill., (a) $110,395, (b) $117,000; Foster, Creighton & Gould, (a) $102,000, (b) $99,350; Central States Bridge Co., (a) $98,490, (b) $96,649; El Paso Bridge & Iron Co., El Paso, Tex. (a) $100,000, (b) $98,800; Milwaukee Bridge Co., (a) $102,500, (b) $104,000; Penn Bridge Co., Beaver Falls, Pa., (a) $115,804, (b) $119,398; Austin Bros., Dallas, (a) $93,083, (b) $90,920; Missouri Valley Bridge & Iron Co., (a) $136,676, (b) $151,642; A. D. McCord, (a) $112,370, (b) $121,068. J. F. Witt is County Engr.

TACOMA, WASH.—W. C. Raleigh, City Engr., is preparing plans for a new bridge over Puyallup waterway, one movable span and two fixed spans.

MADERA, CAL.—The PACIFIC CONSTRUCTION CO. has been awarded contract at $4,220 for the construction of the Berenda Slough bridge.

SAN BERNARDINO, CAL.—The Atchison, Topeka & Santa Fe R. R. Co. contemplates constructing a concrete bridge on the main line over the Santa Ana River near here.

MERCED, CAL.—The WESTERN BRIDGE & CONSTRUCTION CO., 5 Ochsner Bldg., Sacramento, Cal., has been awarded contract at $14,263 for the construction of a steel bridge across the Merced River on the Stevinson Colony and Merced River Road in Road District No. 4. Bids were opened on Jan. 4.

SALINAS, CAL.—Bids will be received by T. P. Foy, Clk., Bd. of Supervisors, until 2 p. m., Feb. 8, for repairs on Carmel bridge and construction of small bridge near Carmel Bridge, in Carmel and Sur Road District, Monterey County.

VANCOUVER, B. C.—Burns & Walkem, Solicitors, are applying for the incorporation of the Burrard Inlet Tunnel & Bridge Co. to build bridges, tunnels, etc., at the Inlet here.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

HARTFORD, CONN.—Thomas D. Bradstreet, State Comptroller, has awarded the contract for reroofing the State Capitol with copper and slate to the SPERRY & TREAT CO., 39 Church St., New Haven, Conn.

NORWICH, CONN.—The Torrington Building Co., of Torrington, Conn. submitted the lowest bid at $90,500, for the general construction and the Connecticut Engineering Co., of New Haven, at $67,800, for reinforced-concrete work for the group of buildings to be erected at the Norwich Hospital for the Insane. Cudworth & Woodworth, Cadden Bldg., Norwich, are Archs.

ALBANY, N. Y.—C. V. Collins, State Supt. of Prisons, has asked the Legislature for an appropriation of $800,000 for the proposed prison at Comstock, Washington County. It is the plan of Mr. Collins to relieve the congestion in Sing Sing and other prisons by removing the first-term prisoners to the Washington County institution. The prison plan will mean an outlay of $2,000,000.

MAMARONECK, N. Y.—The contract for the erection of a $60,000 frame and stucco residence for Albert C. Bostwick has been awarded to GEORGE MERTZ SONS, of Port Chester, N. Y. Harry St. Clair Zogbaum is Arch.

SCHENECTADY, N. Y.—Plans are being prepared for the construction of a church for the congregation of the Tabernacle Baptist Church at State and Robinson Sts. Cost, $40,000. Rev. W. J. Quincy is Pastor.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., Feb. 3, for furnishing and delivering 400 corrugated galvanized iron panels for the American Museum of Natural History, Boro. of Manhattan.

The Remas Construction Co., 545A Macon St., Brooklyn, will erect three 8-family brick and limestone tenements at the southeast corner of Sixth Ave. and 49th St., to cost 100,000. E. Sommers is Arch., 545A Macon St.

Plans have been filed for a 12-story fireproof loft and store building to be erected from designs by Walter E. Thompson at 12 East 33d St. for Sarah Switzer. It is to be of brick trimmed with limestone, having a frontage of 25 ft. and a depth of 89.4 ft., with a small extension. It will cost $85,000.

James H. Baker, Arch., 156 Fifth Ave., has filed plans for a garage and stable to be built for W. & J. Sloane, at 541 to 547 West 29th St. It will be a 3-story structure, of ornamental brick trimmed with bluestone, having a frontage of 66.8 ft. and a depth of 98.9 ft., to cost $50,000.

Charles Luppiran, 180 Main St., New Rochelle, N. Y., is preparing plans and will be ready to take figures on separate contracts immediately for a 2½-story brick and limestone residence, 86 × 55 ft., for H. F. Keil, 401 East 163d St., at a cost of about $50,000.

Plans have been filed for a 5-story studio apartment house, to be erected from designs by Emery Roth, Arch., 20 East 42d St., at the southeast corner of Broadway and 153d St., opposite the south boundary of Trinity Cemetery, at a cost of $40,000, for the Trinity Studios Co., Lawrence Davies, Pres. It will have a facade of ornamental brick and stone, finished with large copper bays.

NEW YORK, N. Y.—Bids are asked by William F. Baker, Police Comr., until 10 a. m., Feb. 3, (1) for furnishing and delivering material for repairs and replacement by departmental labor, consisting of lumber and building material, hardware, paints, oils and glass, plumbing and gasfitting supplies and roofing material; (2) for furnishing and delivering supplies for steamboat "Patrol" and launches of the Police Department.

Crow, Lewis & Wickenhoefer, 160 Fifth Ave., Archs. for the Trustees of Columbia University, have filed plans with the Building Superintendent for the enlargement of the Sloane Maternity Hospital, at the corner of Amsterdam Ave. and 59th St., by the addition of an 8-story annex to the north of the avenue. It will be of brick, ornamented with terra-cotta trimmings and harmonizing with the design of the existing edifice, and will be devoted to wards and private rooms for patients. The first floor will contain the offices of the Superintendent and gynecologists and laboratories. Rooms for the nurses will occupy the second story, and the wards will be on the three uppermost stories. There will also be a 2-story operating theater on the ward floors, and a roof pavilion will crown the building with a shelter annexed. The building is to cost $120,000.

Plans have been filed for the 10-story clubhouse and office building to be erected for the Chemists' Club, Dr. Morris Loeb, Pres., 54 East 41st St. It will be of white marble construction in French renaissance of the Louis XVI. period, finished with ionic pilasters and balconies at the second story and similar decorative balconies at the top story. The main floor will contain in the rear a large auditorium with a balcony, and the second will be fitted as a lunch room with social rooms opening off it. The fourth and fifth floors will be devoted to living and sleeping rooms for the members, below which will be the library and museum. The five upper stories will contain laboratories. The building is to cost $200,000, according to the estimate of York & Sawyer, Archs., 100 Fifth Ave.

Plans are being prepared by Moore & Landsiedel, Third Ave. and 148th St., for a 5-story tenement, 50 × 95 ft., to be erected at the southeast corner of Crotona Park and 173d St., costing $50,000. Francis X. Keil, 1010 Kelly St., is owner and builder.

NEW YORK, N. Y.—Bids are asked until 10 a. m., Feb. 1, by William F. Baker, Police Comr., for furnishing all the labor and furnishing and erecting all the materials necessary in the installation of new plumbing work and fixtures at the 9th, 21st, 36th, 39th, 40th, and Harbor "B" Precincts, in the Boro. of Manhattan; and 144th, 151st, 152d, 156th Precincts, in the Boro. of Brooklyn, in the City of New York.

The Dawson Construction Co., 24 East 23d St., will erect a 6-story apartment house, 125 × 87 ft., on the north side of Cathedral Parkway, 300 ft. east of Eighth Ave. from Bernstein & Bernstein, 24 East 23d St., are Archs. Estimated cost, $200,000.

The block front on the west side of Broadway, from 47th to 48th Sts., occupied by Brewster & Co., carriage manufacturers, has been leased by Henry Erkins, 10 East 33d St., from the John S. Sutphen Estate, it is stated, for 63 years for a rental involving more than $1,500,000. Two theaters and a great restaurant are to occupy the site. Tentative plans for a building for the block front have been drawn. They are likely to be changed considerably. However, the final plans will provide for the erection of a theater at each end of the block. These theaters will be built some distance west of the Broadway frontage, their main entrance being through an arcade from the Broadway side. In the center of the restaurant there will be a glass dome about 60 ft. high. The restaurant will seat about 6,000 persons. There will be ten kitchens.

BUFFALO, N. Y.—H. J. Brock and Mitchell H. Mask, of the United Amusement Co., 611 White Bldg., have leased the Linn Museum Building, Broadway and Washington St., and will expend $50,000 in remodeling to convert it into a vaudeville theater to seat $1,000.

The Clinton Street Market building, recently partly destroyed by fire, is to be repaired and rebuilt and an addition constructed for a produce market. Frank J. Eberle is Chn. Market Com., 222 Carolina St.

Eisenwein & Johnson, Archs., 777 Ellicott Sq. Bldg., have completed plans and will receive bids soon for a theater building, 80 × 100 ft., to be built at the northeast corner of Genesee and Pearl Sts., for the Shea Amusement Co. Construction will be of structural steel, stone, brick and fireproof. Estimated cost, $75,000.

WESTBURY (L. I.), N. Y.—Taylor & Mosley, Archs., 1 Nassau St., New York, have completed plans for a $60,000 2½-story residence, 132 × 50 ft., to be erected near Little Neck Highway, Westbury, for W. E. Silverthorne, of Glen Cove. The architects are ready for estimates.

LONG BRANCH, N. J.—James Ewing, of Pittsburg, Pa., has been granted a franchise to construct a pier, convention hall, theater and hotel by the Long Branch Council. With the passage of the resolution, the company is given authority to organize. The necessary incorporation papers will be sent on at once for incorporation under the New Jersey laws. W. C. & A. F. Cottrell, Appleby Bldg., Asbury Park, N. J., Archs. for the company, were authorized to prepare specifications to be sent out to prospective bidders and it is expected that work on the pier will be pushed forward as soon as the franchise ordinance becomes operative. It is the purpose of the company to start work on the convention hall and hotel as soon as possible, the intention being to have the entire plant in operation for the season of 1911.

NEWARK, N. J.—Plans have been prepared by William E. Lehman, Arch., 738 Broad St., for a 4-story 20-family brick and limestone apartment house, 50 × 100 ft., for the H. C. Schneider Building & Construction Co., 514 South 14th St., Newark, to be erected at Broad and Murray Sts. Estimated cost, $50,000.

BUTLER, PA.—Plans have been prepared and estimates made for a new union depot for Butler, to include a $100,000 viaduct at Center Ave., connecting the South Side with the main section of Butler. The plans will soon be placed in the hands of the officials of the Bessemer & Lake Erie; Buffalo, Rochester & Pittsburg; Baltimore & Ohio, and West Penn railroads. The Butler Passenger Ry. Co. will bear a part of the expense of the viaduct which will eliminate two railroad crossings.

PHILADELPHIA, PA.—We are officially advised that W. E. DOTTS & CO., 148 North Second St., Philadelphia, have the general contract to erect a 9-story apartment house, to cost $360,000, for the Comber Estate. Milligan & Webber, 520 Walnut St., Philadelphia, are Archs.

PHILADELPHIA, PA.—J. Horace Cook, Arch., of the Board of Education, is preparing plans for a $150,000 public school building at Sixth St. and Hunting Park Ave. It will be of brick and concrete and will contain 24 classrooms.

Anderson & Haupt have begun plans for a 4-story, brick and stone school building, to cost about $50,000, for the Hebrew Free School, Third and Catharine Sts.

A building, which is to house the zoological laboratory, will be erected at the University of Pennsylvania, at an approximate cost of $250,000. This building will be built back of the students dormitory quadrangle and west of the old Biological Hall, in which department it is housed at the present time. It will be located near 38th and Pine Sts., on the University grounds. According to the outlined proposal, the new building will have a frontage of 200 ft., and will be constructed on the style of the new medical laboratory, which stands east of the site selected for the zoological laboratory. The structure will correspond to all the other buildings that have been put up by the University within the last five years.

PITTSBURG, PA.—The Building Committee and jury chosen to select a plan from among 65 submitted by architects for the proposed new church of the First Baptist congregation, have chosen the plans submitted by Cram, Goodhue & Ferguson, 170 Fifth Ave., New York, and Boston. The church is to be located at Bellfield Ave. and Bayard St., and when completed will cost approximately $250,000. The Building Committee includes the Trustees of the church, Charles A. Edsall, Chn.; William E. Lincoln, Secy.; J. Henry Stauff, H. K. Porter, A. J. Edwards, Dr. H. C. King, F. C. Flynn, W. H. Smith and W. H. Whomsley. Rev. Warren G. Partridge is Pastor.

WASHINGTON, D. C.—Bids are asked by the District Commissioners until noon, Jan. 27, for constructing Engine House No. 23 on Lot 5, Square 79, north side of G St., between 21st and 22d Sts., N. W.

*LYNCHBURG, VA.—Notice is given that the time for opening bids for the construction of an extension, etc., except elevator (including plumbing, gas piping, heating apparatus, electric conduits and wiring, and standard clock system), at the U. S. post-office and court-house at Lynchburg, Va., has been extended from Feb. 10 to March 3. James Knox Taylor is Superv. Arch., Treasury Dept., Washington, D. C.

KINGWOOD, W. VA.—We are officially advised that the Board of County Commissioners of Preston County has employed Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., to prepare plans and specifications for a 3-story, fireproof brick and stone county court-house, 75 × 125 ft. to cost about $150,000. Contract will be let in the spring.

*GOLDSBORO, N. C.—Notice is given that the time for openings bids for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of an extension to the U. S. post-office at Goldsboro, N. C., has been extended from Jan. 31 to Feb. 25. James Knox Taylor is Superv. Arch., Treasury Dept., Washington, D. C.

ATHENS, GA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 9, for the extension, remodeling, etc., (including plumbing, gas piping, heating apparatus, electric wiring and conduits), of the U. S. post-office and court-house at Athens.

MEMPHIS, TENN.—OLSON & LESH, 123 Madison Ave., Memphis, have been awarded the contract for the construction of the Exchange Building, which will replace the old Cotton Exchange building at Madison Ave. and Second St., as the home of the Memphis Cotton Exchange and the Memphis Merchants' Exchange, by the directors of the Exchange Building Co. N. M. Woods, Jr., is Arch., Goodwyn Institute Bldg., Memphis. The contract price is about $850,000, which covers the total cost of the structure. The contract calls for completion not later than Jan. 1, 1911. The structure will have 19 stories, with a mansard roof, designed to be used as a roof garden. The architecture will be of the French renaissance style. There will be three entrances, the main one to be located on Second St. side of the building and the other two on Madison and South Court Aves., respectively. All corridors are to be of marble, as will the rotunda on the ground floor. The interior woodwork in the Exchange building will be of mahogany throughout. Aside from the second floor, which will be given over to the exclusive use of the Memphis Cotton Exchange and the Memphis Merchants' Exchange, there will be approximately 400 offices in the building. The floor upon which the two exchanges will be located will be designed especially for their use. Each organization will occupy the relative position in the new building that they did in the old Cotton Exchange building, the space to be allotted to each being 53 × 73 ft. A battery of seven modern traction elevators will be used in the building. Construction work is to start at once.

COLUMBUS, OHIO.—David Riebel & Sons, Archs., New First National Bank Bldg., are preparing plans for two school buildings for the city of Columbus. It is estimated that the cost will be about $50,000 and $100,000, respectively.

FT. WAYNE, IND.—The Trustees of local lodge of the Brotherhood of Railway Trainmen will ask for bids soon for the construction of a home. Work is to begin in the spring.

BRAZIL, IND.—The Trustee of Lewis Township will ask for bids soon for the erection of a township school building.

COLOMO, IND.—Hugh Montgomery, of Rockville, Ind., Trustee of Reserve Township, is asking for bids for the erection of a 12-room brick school house at Colomo, and for the installation of a steam heating plant therein. Layton Allen, Lombard Bldg., Indianapolis, is Arch.

BLUFFTON, IND.—The School Board has decided upon a design for the construction of a high school building. Estimated cost, $50,000. Bids will be asked for in a few weeks. The building will be erected on the site of the old Central School building.

LA CROSSE, WIS.—Bids were received as follows on Jan. 19, by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of an extension to the post-office at La Crosse, Wis.: La Crosse Construction Co., La Crosse, Wis., $43,425; General Construction Co., Hathaway Bldg., Milwaukee, Wis., $38,880; Northern Construction Co., Milwaukee, Wis, $42,000; Bartlett & Kling, Inc., Cedar Rapids, Iowa, $49,200. Time, Nov. 1, 1910.

DES MOINES, IOWA.—On Jan. 11 the members of the Des Moines Club decided on the erection of a $150,000 club-house building at the southwest corner of Eighth and Locust Sts. The structure will be fireproof. Work will be started May 1. It was decided to rent the basement, first and second floors of the building for business enterprises, while the three upper stories will be fitted for the use of the club. There will be a roof garden.

WILLMAR, MINN.—C. H. Johnston, State Arch., Manhattan Bldg., St. Paul, is completing plans for the construction of the new State inebriate Asylum, to be built at Willmar. The State Board of Control, Charles Halvorson, Chn., will take bids soon for the main building which will be fireproof and will cost $150,000. The same architect is completing plans for the first group of buildings to be built by the same Board at St. Cloud, Minn., for the State Training School for Girls, which will cost an aggregate of $125,000.

DULUTH, MINN.—Bids will be received by the Board of Education of the City of Duluth, at its office, Central High School Bldg., Duluth, Minn., until 7.30 p. m., Feb. 4, for the purchase of all or any part of the sum of $100,000 of bonds, the same being part of a total issue of $200,000 of the bonds of the Independent School District of the City of Duluth. Charles A. Bronson is Clerk of Bd.

MANHATTAN, KAN.—Bids are asked until 6 p. m., Feb. 22, by C. L. Moore, Chn. of Trustees of the First Baptist Church of the City of Manhattan, for furnishing all material and labor for the construction of a stone building.

LEAD, S. DAK.—Notice is given that the time for opening bids for the construction complete of the U. S. post-office building at Lead, has been extended from Feb. 14 to March 4. James Knox Taylor is Superv. Arch., Treasury Dept., Washington, D. C.

ST. LOUIS, MO.—The Tudor Dwellings Co. has acquired, through Oreon E. & R. C. Scott, Agents, 817 Chestnut St., from Minnie Wuest, 113 ft. of ground on the south side of Delmar Boulevard, and from William Z. McCormick, an additional 100 ft. adjoining this on the east, making an aggregate of 213 ft., situated between Union and Clara Aves., almost opposite the park adjoining St. Luke's Hospital. It is the intention of the Tudor Dwellings Co. to improve this property at once with an apartment house. The building will be constructed on the pavilion plan, having the buildings grouped around a central court, provided with a sunken garden. This is what is known as the formal type of Elizabethan garden, and will be laid out with walks, fountains and pools of water. The court will be 100 ft. in width by 140 ft. in depth. Barnett, Haynes & Barnett, Frisco Bldg., are Archs.

ST. JOSEPH, MO.—The Seven Day Adventists of the Western States, who held their annual conference in St. Louis recently, have plans for a $200,000 college to be built near St. Joseph for the German-speaking Adventists of the United States.

*DENVER, COLO.—The advertisement for bids for the construction of the post-office and court-house building at Denver, Colo., is corrected and the time for opening bids extended as follows: Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 15 (instead of Feb. 17), for the construction, including plumbing and drainage, of the U. S. post-office and court-house at Denver.

The following buildings, according to the Denver "Post," are to be built here this year: Fifteenth St. Investment Co.—12-story structure, 16th and Curtis Sts., to occupy the Church Estate property; 150 ft. on 16th St. by 80 ft. on Curtis St. Daniels & Fisher's Stores Co.—10-story annex to present store, corner 16th and Arapahoe Sts. on the Alkire property. A. C. Foster.—12-story office building on northwest corner of 16th and Champa Sts.; lot 150 ft. on 16th St. by 75 ft. on Champa St. American Tobacco Co.—Building, southeast corner of 16th and Champa Sts.; property fronts 150 ft. on 16th St. and 100 ft. on Champa St. This building will cost more than $1,000,000. International Trust Co.—12-story building on site to be selected, but probably at the corner of 17th and California Sts. A. E. Carlton.—12-story building on the Stratton Estate, corner 17th and Welton Sts.

SAN FRANCISCO, CAL.—A 6-story brick building is to be erected at the northeast corner of O'Farrell and William Sts., between Jones and Taylor Sts. The building will cover a lot 28 × 62½ ft., and it will have a basement in addition to the six stories. Plans have been completed for the structure by C. A. Meussdorffer, Arch., Humbolt Bank Bldg., which show an attractive exterior, to be finished in white Caen stone and colored mosaic frieze. The entrance will be of marble and tile, with an ornamental marquise. The interior arrangement is for apartments, of which there will be three on each floor, in suites of two and three rooms and bath-room each. The owner is A. W. Wilson and the estimated cost $40,000. Construction is to begin immediately after the contracts are awarded.

SANTA CLARA, CAL.—The plans for the Santa Clara College, practically decided upon, and which will be carried out if the fund of $250,000 needed for the commencement of operations is raised within the next few months, have been announced by Rev. Joseph P. Lydon, Vice-Pres., and include ten buildings, the structural material being reinforced concrete and the whole series of buildings being fireproof. The plateau at

Loyola station, near Mountain View, where the contemplated college is to be located, has a length of 1,800 ft. north and south, and a width of 600 ft. east and west. In the center of a row of buildings will be the administration building and main entrance. North and south of that building will be the chapel, for which Mrs. Bertha Welch has contributed $50,000, and the library building. South of the latter structure will stand the physics building, and north of the chapel the college theater. The principal buildings are to be three stories in height. From one building to another, along the front of the plateau will run an esplanade, while at the back of the structures mentioned will be the fathers' garden. West of the administration building, and on the opposite side of the garden, will be the kitchen and refectories. South of this will stand a building containing a dormitory, study halls and classrooms, and on the north will be a companion building for the same purposes. Provision will be made for 300 individual rooms, each student to have a special apartment fitted with modern conveniences. On an elevated point above the plateau toward the north and west will be the observatory, while the chemistry building will occupy the southwest corner of the site. Ample space for a gymnasium, track, baseball fields, handball and tennis courts is afforded in the rear of the second line of buildings. The complete plans are now being finished by Albert Pissis, Arch., Flood Bldg., San Francisco.

LOS ANGELES, CAL.—The Bekins Van & Storage Co., Los Angeles, is preparing to erect a fireproof 6-story reinforced-concrete loft and storage building, 65 × 100 ft., on Figuero St. Cost, $70,000.

Board of Fire Commissioners has received bids as follows for construction of a fire engine house on Figuero St., north of Seventh St.: J. V. McNeil, $73,300; J. S. Jacobs & Co., $97,963; F. O. Engstrum Co., $82,812; C. Leonardt, $89,950; C. J. Kubach Co., $83,141.

Plans have been completed by Charles E. Shattuck, Arch., Mason Bldg., for an addition to the market house of the Los Angeles Public Market, Inc., at Sixth and Alameda Sts. The building will be constructed of brick and steel, and will have a frontage of nearly 1,200 ft. and a depth of 70 ft. It will contain two stories and a basement. On the first floor will be fruit storage rooms and other conveniences for the wholesale produce trade. Offices will be provided in a balcony between the first and second floors, and will have vaults. The second floor will be of loft arrangement, for the storage of produce. There will be 16 elevators in the interior of the building, and a number of sidewalk elevators. The floors of the first story will be of asphaltum on plank, and those of the second floor of 2-in. tongue-and-groove plank. The basement will have prism lights. While the building will be an addition to the market house that has been completed, it will be in effect the main building of the establishment. A platform will be built along the entire frontage. A storage plant will be constructed eventually in connection with the market house.

HOLLYWOOD, CAL.—The Methodist Congregation has purchased a lot on Prospect St. at the corner of Grace St., on which to erect a $50,000 church building. W. P. Ryland is Pastor.

BARSTOW, CAL.—Plans are being prepared by F. W. Wilson, Kerkhoff Bldg., Los Angeles, for a reinforced concrete hotel to be erected in Barstow, for the Atchison, Topeka & Santa Fe Ry. Co. Cost, $250,000.

SAN BERNARDINO, CAL.—The Board of Supervisors of San Bernardino is considering a proposition to erect new buildings for the County Hospital, Detention Home, Orphans' Home, etc. Cost, $150,000.

BOISE, IDAHO.—Bids are asked by the Constructing Q. M., Boise, until 2.30 p. m., Feb. 17, for constructing, plumbing, hot air heating, and electric wiring a single set of N. C. O. quarters, brick, with slate roof, at Boise Barracks, Idaho.

ST. JOHN, N. B.—The following amounts have been voted by the City Council in connection with work to be done during this year: Schools, $136,418; public works, $78,000; sewerage maintenance, $15,000; lighting, $26,500; police, $48,000; fire, $65,000; ferry, $10,400, and various other works, totaling an expenditure of $480,277. Wm. Murdoch is City Engr.

MAISONNEUVE, QUE.—The City Council of Maisonneuve, on Jan. 17, granted the Lachine, Jacques Cartier & Maisonneuve Ry. Co. authority to erect a terminal station on St. Catharine St., between Frontenac and Harbor Sts. As the project is backed by the Grand Trunk Ry. System, it is expected that the Grand Trunk Pacific will enter Montreal in the near future, over this line. Noted fully on Jan. 6, under Montreal, Que.

MONTREAL, QUE.—See item under Maisonneuve.

KENORA, ONT.—Bids are asked by H. F. McNaughten, Secy., Public Works Dept., Parliament Buildings, Toronto, Ont., until noon, Feb. 1, for the completion of the courthouse in Kenora. J. O. Reaume, Minister of Public Works, Toronto, Ont.

WINNIPEG, MAN.—It is announced that all the Canadian Pacific Ry. hotels along the line from Winnipeg to Victoria are to be enlarged. Hayter Reed is Mgr. Hotel System, C. P. R., Montreal, Que.

EDMONTON, ALTA.—Following is a list of buildings to be erected in Edmonton this year: City Hospital, $200,000; Masonic Temple, $125,000; New High School, $100,000; Alberta Hotel (additions), $100,000; Public School on 17th St., $100,000; Cristall Block, $70,000; McDougall Methodist Church, $70,000; King Edward Hotel (addition), $60,000; Union Bank, $60,000; Molsons Bank, $50,000; National Trust, $50,000; Macdonald Block, $50,000; Canada Permanent Mortgage Corporation, $50,000; total, $1,085,000. In addition to the foregoing, construction work will be continued on the parliament buildings for the Province of Alberta, which, when completed, will represent an investment of more than $1,500,000; the courthouse will cost $300,000 and in Strathcona on the other side of the river the Alberta University buildings will be erected at a cost of over $500,000. It is expected that the construction work by the railways and the institutions mentioned will mean the expenditure in Edmonton of at least $500,000 in supplies.

WATER-SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

*NEW YORK, N. Y.—The following bids were received on Jan. 25 by the Board of Water Supply for Contract 54, for constructing the Yonkers Siphon, about two miles long: George W. Jackson, Inc., 46 Wall St., New York, $1,479,425; Carter Construction Co., 134 La Salle St., Chicago, Ill., $1,716,555; Breuchaud-Winston Co., 290 Broadway, N. Y., $1,880,725; Patrick McGovern, 6 Beacon St., Boston, Mass., $1,596,680; Keystone State Construction Co., 2 Rector St., New York, $1,759,525; MacArthur Bros., Co., 11 Pine St., New York, $1,647,210; J. F. Cogan, Brewster, N. Y., $1,701,200; Dravo Contracting Co., Lewis Block, Pittsburg, $1,726,405; H. P. Burgard Co., 275 Lathrop St., Buffalo, N. Y., $1,868,320; T. A. Gillespie, 90 West St., New York, $1,591,330.

*POUGHKEEPSIE, N. Y.—Bids are asked by the Board of Public Works until 4 p. m., Feb. 17, for one 5,000,000-gallon high-lift pumping engine, one 5,000,000-gallon low-lift pumping engine, one surface condenser, two 125-HP. tubular boilers. For details see advertisement in this issue. R. T. Shields is Clk.

NEWARK, N. J.—The Board of Public Works has decided to connect the Clifton Ave. reservoir with the South Ave. reservoir. Estimated cost, $50,000. Morris R. Sherrerd is City Engr.

PITTSBURG, PA.—The Common Council on Jan. 10 passed the ordinance providing for two sets of pumping machinery for the filtration plant. Estimated cost, $300,000.

NORFOLK, VA.—The Board of Control on Jan. 15 awarded contract to HARRISON BROS. & CO., 35th St. and Gray's Ferry Road, Philadelphia, Pa., for furnishing the city water-works 225 tons of filter alum at 97 cts. per cwt. Thomas B. Dornin is Ch. Engr. Water Dept.

EDISON, GA.—The citizens have voted to issue $17,000 of bonds for the construction of water-works.

SHELLMAN, GA.—This city contemplates spending about $8,000 for improvements this year. An air lift, fire pump, reservoir and extension of mains is proposed. C. P. Payne is Supt.

ELGIN, ILL.—The Finance Committee of the City Council and the Board of Water Commissioners have adopted plans for improvements to the water-works with an electric light plant, the work to extend over a period of five years. About $5,000 will be expended the first year.

MILFORD, IOWA.—Bids will be received about March 1 by the city for the construction of water-works. Estimated cost, $12,000. W. M. Quaife is City Clk. Iowa Engineering Co. are Engrs., Clinton.

LEON, IOWA.—Bids will be received about March 1, by the city, for constructing water-works from the plans of the Iowa Engineering Co., Clinton.

*BURLINGTON, IOWA.—The time for opening bids for furnishing and erecting a complete pumping station has been extended from Feb. 2 to Feb. 17 by the Board of Supervisors, Des Moines County, including the building and machinery. For plans and specifications and further information apply to the Harman Engineering Co., 120 Fredonia Ave., Peoria, Ill.

SIOUX CITY, IOWA.—The Board of Water-Works Commissioners have decided to increase the capacity of the water-works. An additional 24-in. main from the pumping station to the reservoir will be put in and another 24-in. main will be run from the reservoir connecting up with the system supplying the downtown districts. G. Y. Skeels is City Engr.

COLBY, KAN.—We are officially advised that plans have been completed for the construction of municipal water-works and lighting plant for Colby. Estimated cost, $55,000. Burns & McDonnell are Consulting Engrs., Scarritt Bldg., Kansas City, Mo.

CHEROKEE, KAN.—The citizens on Jan. 12 voted in favor of constructing a water-works system. H. M. Reid is Chn. Water Com.

KANSAS CITY, KAN.—Bids will be received by the Board of Water-Works Trustees until 2 p. m., Feb. 2, for the construction of a reinforced-concrete settling basin and head-house at Quindaro. J. E. Barker is Secy.

CAWKER CITY, KAN.—Bids were opened on Jan. 11 by the city for the construction of water-works from the plans of George P. Taylor, of Stockton. Contracts have been awarded as follows: Tank, to DES MOINES BRIDGE & IRON CO., Des Moines, Iowa, at $4,360, and to T. C. BROOKS & SONS CO., of Jackson, Mich., for laying 6, 4 and 2-in. pipe at 74 cts., 53 cts., and 27 cts. per lin. ft.; specials, 3 cts. per lb.; pump, $1,300, and for hydrants and gates.

FORT MACKENZIE, WYO.—Bids are asked until 2 p. m., Feb. 14, by the Constructing Quartermaster, U. S. A., Fort Mackenzie for lining with waterproofing felt and vitrified brick a 1,000,000-gallon concrete reservoir near this post.

CENTRALIA, MO.—We are officially advised that plans have been completed for the construction of municipal water-works for Centralia. Estimated cost, $45,000. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

SLATER, MO.—We are officially advised that plans are being prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., for the reconstruction of the municipal water-works and lighting plant here.

DALLAS, TEX.—Bids will be received until Feb. 16 instead of Feb. 2 for constructing the foundation for the pumping station, building the dam, spillway and other appurtenances at the White Rock water-works reservoir. William Barclay Parsons, New York, and John B. Hawley, Ft. Worth, Tex., are Consulting Engrs. J. M. Preston is City Engr.

MISSION, TEX.—H. N. Pharr, of New Iberia, La.; John C. Kelley, of Waco, and John J. Conway, of Mission, are interested in the installation of an irrigating system on lands owned by the Louisiana-Rio Grande Sugar Co., in which they are interested. The lands of the company are situated about 20 miles from here. It is proposed to install a system which would irrigate 23,000 acres, and work may be begun within the next 30 days. The work will include the digging of canals and building of pumping plants.

DELTA, COLO.—Bids will be received until Feb. 5 by the Board of Directors of the Northern Delta Irrigation District, W. H. Burnett, Secy., for $140,000 irrigation bonds.

FLORENCE, COLO.—J. A. Tutman, Montrose, and associates, are interested in an irrigation project in Custer County, plans for which have just been made public. This new enterprise has for its object the reclamation by irrigation of 12,000 acres of land on the south end of Wet Mountain Valley. The source of the water supply is Sand Creek in the Sangre de Cristo range. A large dam will be built to raise the water at the head of the creek and the body of water will then be tapped by a canal which will carry it down the east slope of the mountain.

FORT WORDEN (Port Townsend post-office), WASH.—It is planned to construct a reservoir at the fort this year. Estimated cost, $40,000.

ABERDEEN, WASH.—The CRANE CO., of Seattle, has secured contract for pipe at $35 per ton, and for specials at 3½ cts. per lb. Bids were opened on Jan. 5 by the city.

CENTRALIA, WASH.—The Centralia-Chehalis Water & Power Co. has been incorporated with a capital of $250,000, by John E. Heasty, L. W. Goodrich, E. S. Price and others, all of Tacoma, to furnish water for domestic and manufacturing and other uses.

LAKEVIEW, ORE.—We are officially advised that the Oregon Valley Land Co which is building the Goose Lake Valley irrigation system in this vicinity, will have a loose rock dam and about 2,500,000 ft. B.M. of timber work in flumes and trestles ready to let to contract early in the spring. G. W. Rice, Lakeview, is Ch. Engr.

Papers have been filed in the local land office for the selection of 100,000 acres of government land to be reclaimed under the Carey Act in Warner Valley, 30 miles east of here. It is unknown just what financial interests are back of the project, but it is reported that $2,000,000 of bonds are to be issued at once.

SAN FRANCISCO, CAL.—The citizens on Jan. 14 voted in favor of issuing $45,000,000 of bonds for the construction of the Hetch-Hetchy system, using Lake Eleanor and Tuolumne River as the source of supply. Marsden Manson is City Engr.

COLUSA, CAL.—Bids were opened on Jan. 3 by the city for constructing water-works. Contracts have been awarded as follows: To STANDARD ENGINEERING CO., 503 Market St., San Francisco, for 85 ft. 10-in. c.-i. pipe, $1.49; 6,395 ft. 8-in., $1.11; 33,160 ft. 4-in., 56 cts.; 4,320 ft. 3-in., 29 cts., and 1,980 ft. 2-in, 18 cts.; wells, $1,270, and fittings on distributing system, $3,136, and to F. C. ROBERTS & CO., 461 Market St., San Francisco, for pumping station, $9,978, and tank and tower, $6,100. Total cost of entire plant, $47,935.

STOCKTON, CAL.—W. G. Hunter, Engr., in his report to the Supervisors of San Joaquin County at Stockton on the Bellota flood problem recommends the construction of a reservoir in the foothills to control the Calaveras River freshets; also the further investigation of the possible diversion of Little John Creek into the canal of the South San Joaquin irrigation district. The South San Joaquin Irrigation Ditch, voted on Dec. 30, to construct the proposed irrigation system. Estimated cost, $1,875,000. Edwin B. Duryea, Jr., Humboldt Bank Bldg., San Francisco, is Ch. Engr.

SACRAMENTO, CAL.—A corporation to be capitalized at $250,000 is being formed for the purpose of installing a water system in East Sacramento, Elmhurst, Monte Vista and the other suburbs lying to the east of this city. A water-works plant will be built in Elmhurst. Those financing the proposition are: C. M. Goethe, H. J. Goethe, H. T. Goethe and H. A. McClelland, of Sacramento, but among the stockholders will be many residents of the suburbs east of Sacramento. All the territory north of R St. will be included as well as the district south to Monte Vista.

SAN BERNARDINO, CAL.—Articles of incorporation were filed with the County Clerk on Jan. 10 for the Redlands & Yucaipa Water Co. Capital, $500,000. Those interested are: H. H. Ford, G. A. Atwood, B. B. Harlan, A. N. Dike, J. H. Logie, E. M. Lyon and F. A. Leonard. The corporation is effected in connection with the plans for colonizing Yucaipa Valley.

FULLERTON, CAL.—A franchise for a new domestic water system for Fullerton has been sold by the trustees to Mrs. G. B. Miller, A. I. Stewart, Local Agt. Estimated cost, $40,000.

PHOENIX, ARIZ.—The Secretary of the Interior has awarded contract to the S. MORGAN SMITH CO., of York, Pa., for the installation of an exciter water-wheel in the power-house of the Salt River irrigation project, Arizona. The contract price is $1,740.

SALT LAKE CITY, UTAH.—Bids will be received by the Board Public Works, H. G. McMillan, Chn., until Feb. 4, for constructing the City Creek aqueduct, including dam for catch-basin and excavation for settling pond above dam. Estimated cost, $24,000. George Chaney is City Engr.

THEODORE, UTAH.—The Upper Blue Ranch Canal & Reservoir Co. will probably soon let contracts for the proposed work contemplated. Estimated cost, $1[illegible]00. E. F. Harmston, of Roosevelt, is Engr.

MONCTON, N. B.—J. Edington, C. Engr., has prepared plans for a reservoir in connection with the water supply. Estimated cost, $212,000.

SEWERAGE.

NORTH ADAMS, MASS.—Roswell P. Gardner, City Engr., has made preliminary surveys for the construction of sewers in the western end of the city.

CAMBRIDGE, MASS.—Bids are asked until noon, Feb. 2, by L. M. Hastings, City Engr., for furnishing sewer materials.

SYRACUSE, N. Y.—The lowest bid opened on Jan. 17 by the Board of Contracts and Supply for the construction of a 15-in. sewer in Avery Ave., from Morgan to Gere Aves., a 12-in. sewer in Avery Ave., from Gere Ave. to Milton St., a 15-in. sewer in Gere Ave., from Avery to Gere pl, a 15-in. sewer in Gere pl, from Gere Ave. to Milton St., and a 12-in. sewer in Morgan St. from Avery Ave. to city line, was that of Albert Gaffey, 116 Sand St., Syracuse, at $8,601.

The lowest bid submitted for the construction of an 18-in. sewer in Greenway Ave. and 15-in. sewers in Vann St. and Hawley Ave., was that of Philip Thomas at $3,524.

WESTFIELD, N. Y.—F. K. Wing, 910 White Bldg., Buffalo, has prepared plans for the construction of a sewer system and disposal plant. Estimated cost, $110,000.

NORTH PELHAM (Pelham post-office), N. Y.—We are officially advised that bids were received as follows on Jan. 18 for the construction of a sewer system for this village: SILLARY & PIRO, Mount Vernon, N. Y., $38,351 (awarded contract); Clark & Co., Ltd., Morristown, N. J., $42,458; Michael Marrone & Felix Gasperal, New York, $42,758; James J. Fusco, Newark, N. J., $47,542; William M. Acheson, Troy, N. Y., $46,375; O'Leary & Flanagan, New York, $47,035; N. Y. Interurban Development Co., Mount Vernon, N. Y., $47,186; Briggs & McLaughlin, New York, $47,931; Frank Nordone, Mount Vernon, N. Y., $50,592; Ryan & Reilly, Baltimore and Philadelphia, $51,542; Smith Bros., Pelham, N. Y., $53,812; Samuel Bonn, Syracuse, N. Y., $59,929; L. I. Engineering & Contracting Co., Long Island City, N. Y., $65,391. Harold B. Roberts, 103 Park Ave., New York, is Consulting Engr.

*SUMMIT, N. J.—Bids are asked by the Common Council until 8 p. m., Feb. 1, for the construction of 1,940 lin. ft. of 8 and 10-in. vitrified pipe sewer in Hill Crest Ave. and Summit Ave., and manholes, excavation, etc., necessary. John S. Stiger is City Engr.

WASHINGTON, N. J.—Bids will be received until noon, Feb. 14, at the office of A. J. Craft, Boro. Clk., for constructing about eight miles of vitrified pipe sewer from 8 to 18-ins. with Y branches, flush tanks, etc., and a sewage disposal works, including the necessary piping, grading, etc. A. J. Craft is Boro. Clk. Plans and specifications may be had at the office of Clyde Potts, Engr., 30 Church St., New York.

PHILADELPHIA, PA.—Bids are asked until noon, Feb. 1, by the Department of Public Works for Schedule A, branch sewer in Dorset St. between Anderson and Stenton Aves. George R. Stearns is Dir.

David McMahon, Main and Chelten Aves., Philadelphia, submitted the lowest bid on Jan. 18 for the construction of a branch sewer in Tenth St. and in Chelten Ave. under the North Penn R. R. at $4,204.

CHARLESTON, S. C.—Bids will be received at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Feb. 19, for constructing an intercepting drain at the navy yard, Charleston. Specifications are on file at the office of Engineering News, New York.

SAVANNAH, GA.—J. W. Howard, City Engr., has been instructed to prepare plans for the extension of the house drainage system. Estimated cost, $350,000.

MORRISTOWN, TENN.—The citizens on Jan. 15 voted to issue $40,000 of bonds for the construction of a sewer system, vitrified pipe to be used. D. C. Morris is City Recdr.

CANTON, OHIO.—The city proposes to construct storm water sewers this year as follows: Liberty St., 8-ft. diameter brick, 2,800 ft. long; Dueber Ave., 30, 36 and 42-in. diameter, brick, 2,400 ft. long, and Cedar St. and Clifton Ave., 20-in. pipe and 36-in. brick, 1,200 ft. long. P. H. Weber is City Engr.

TOLEDO, OHIO.—Bids will be received until Feb. 1, by the Board of Public Service, F. Shane, Secy., for constructing sewer No. 1090, in Hoag St.

MISSOURI VALLEY, IOWA.—The Iowa Engineering Co., of Clinton, has made a survey for the construction of a sewer system here. Estimated cost, between $18,000 and $25,000.

CANBY, MINN.—Bids will be received until Feb. 8 at the office of P. O. Sherrum, City Recdr., for constructing about 8,000 ft. of 6-in., 8,400 ft. of 8-in., 1,200 ft. of 10-in. sewer, 1,450 ft. of 4-in., 4,075 ft. of 6-in., 350 ft. of 8-in., 800 ft. of 10-in. tile sub-drain, 50 manholes, sewage settling tank, 6 or 8-HP. gasoline engine 4-in. centrifugal pump, vertical submerged sewage well and pump-house. John Wilson is Engr., Mankato.

HOLTON, KAN.—J. M. KERAS, 636 S. Washington St., Denver, Colo., has been awarded contract by the city at $41,[illegible]96 for the construction of a sewer system here. Bids were opened on Jan. 12.

OSAGE CITY, KAN.—We are officially advised that plans are being prepared for the construction of sanitary sewers here. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

ST. JOHN, KAN.—We are officially advised that plans are being prepared for the construction of sanitary sewers here by Burns & McDonnell, Consulting Engrs., Scarritt Bldg., Kansas City, Mo.

HEBRON, NEB.—All bids opened on Jan. 12 by the city for constructing sewers have been rejected. New bids are asked until Feb. 18 for about 13,000 ft. of 8-in. vitrified pipe, 3,000 ft. of 15 and 10-in. vitrified clay pipe, twelve flushtanks, 25 manholes, etc. Estimated cost, $16,500. O. P. Hess is City Clk.; C. H. Meeker, McCook, is Engr.

MANDAN, N. DAK.—R. E. Wickham, of Grand Forks, is preparing plans for the construction of the proposed sewer system. Bids will be received about May 1.

ST. LOUIS, MO.—Bids are asked until noon Feb. 11, by the Board of Public Improvements for constructing various sewers. W. B. Dryden is Clk.

CENTRALIA, MO.—We are officially advised that Burns & McDonnell, Consulting Engrs., Scarritt Bldg., Kansas City, Mo., are preparing plans for sanitary sewers here. Estimated cost, $20,000.

HOUSTON, TEX.—F. L. Dormant, Engr. of Sewers, has completed plans for the construction of sanitary sewers in the Second Ward.

*DENVER, COLO.—The lowest bid received on Jan. 14 by the Board of Public Works for the construction of district sewers, submains and their appurtenances in and for the West and South Side sanitary sewer district in the city and county of Denver was submitted by Dennis Gibbons at about $589,700. Other bidders were: Gaffy & Keefe, $687,668; Charles Connor, $657,364; Municipal Construction Co., $636,-801.

GARFIELD, WASH.—E. C. Murray, of Colfax, has prepared plans for a sewer system to include two miles of 12, 10, 8 and 6-in. pipe, a tank 24 × 25 ft. and two filter beds. Estimated cost, $15,000.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported that the estimated cost of the proposed sewer in 36th Ave., etc., is $39,000.

IMPERIAL, CAL.—Bonds for $35,000 have been sold for the construction of a sewer system. J. T. Rice, of Imperial, is Engr.

MONTEREY, CAL.—Contract for constructing the Dickman Ave. storm sewer has been awarded to JOHN TAUFNIR, of Monterey.

COLTON, CAL.—Plans are about completed for the construction of a sewer system here. Estimated cost, $65,000. R. J. Martin is Pres. Bd. City Trustees.

LOS ANGELES, CAL.—The city is considering the construction of a storm drain in Alameda St. Estimated cost, $175,000.

WINSLOW, ARIZ.—Bonds for $40,000 have been voted here for the construction of a sewer system.

SALT LAKE CITY, UTAH.—Bids will be received until Feb. 4 by the Board Public Works, H. G. McMillan, Chn., for constructing pipe sewers in sewer extensions Nos. 220, 249, 253 and 254. George O. Chaney is City Engr.

VANCOUVER, B. C.—F. C. Gamble, Engr., Provincial Pub. Wks. Dept., Victoria, is considering plans for the construction of a sewer in Nanaimo St.

GARBAGE DISPOSAL.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids are asked until noon, Feb. 8, by William H. Edwards, Comr. of Street Cleaning, for furnishing all the labor and materials required for the removal of snow and ice in various boroughs.

*LYNCHBURG, VA.—Bids for the construction of an incinerating plant of 25 tons capacity, for burning garbage, refuse, and dead animals, including a fireproof building, will be received by the Council Committee on Sanitation and Street Cleaning, at the office of H. L. Shaner, City Engr., until 2.30 p. m., Feb. 28.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids will be received until Jan. 31 by Guy C. Emerson, Supt. of Streets, for repairing asphalt pavement in any street in Boston not under guarantee when ordered to do so by the Superintendent of Streets between Feb. 1, 1910, and Jan. 31, 1911.

LAWRENCE, MASS.—The City Council has authorized the mayor to petition the State Legislature for permission to issue bonds for paving improvements as follows: Paving of Lawrence St. from Common St. to Methuen, $35,000; Broadway, from Andover to Methuen Town Line, $213,236; Jackson St. from Essex St. to Methuen Line, $24,-700; Essex St. to Margin, $6,000; Lowell, Milton and Haverhill Sts. to Methuen Line, following car line, $13,700; Union St., from Duck Bridge to Garden St., $5,500, and Hampshire St. from Oak to the Methuen Line, $18,000. Arthur D. Marble is City Engr.

HARTFORD, CONN.—Plans for proposed State road work have been received by James H. MacDonald, Highway Comr., as follows: From R. E. Mitchell, Engr., 5,100 ft. in the town of Brooklyn; from R. S. Hulbert, Engr., 9,700 lin. ft. on the main road from Winsted to Norfolk, in the town of Colebrook; from E. C. Weldon, Engr., two sections in the town of Union, aggregating 4,200 feet.

BRIDGEPORT, CONN.—The Streets and Sidewalks Committee has filed a requisition for $156,541 with the City Auditor, which includes the following: Street grading, $5,000; sidewalks, curb and gutter, grading, $3,000; new crosswalks, $5,000; for permanent pavement, Elm St., Main St., Broad St. from Elm St. to Fairfield Ave., $7,350; Congress St. from Main St. to Housatonic Ave., $2,740; block pavement, West Housatonic Ave., from Congress St. to North Washington Ave., $4,-220; new macadam, $51,950.

*ALBANY, N. Y.—Bids are asked by the State Highway Commission, 55 Lancaster St., Albany, N. Y., for the construction of State highways, as follows: Until 1 p. m., Feb. 14, on Reservation-Ovid Road No. 323, Seneca County, 3.86 miles; Highland-Gardner Road No. 350, Ulster County, 3.76 miles; Saugerties-Kingston Road No. 5,000, Ulster County, 2.32 miles; Lloyd Town Line-Milton Road No. 5,001, Ulster County, 1.57 miles; Canajoharie-Flat Creek-Blaine Road No. 397, Montgomery County, 6.67 miles; East Creek-St. Johnsville Road No. 5,028, Montgomery County, 3.73 miles; Berry Hill Road No. 548, Nassau County, 7.59 miles; Mechanicville-Malta Road No. 610, Saratoga County, 7.42 miles; Waterford, Sec. 1, Road No. 842, Saratoga County, 0.27 miles; Watertown-Theresa, Sec. 1, Road No. 565, Jefferson County, 7.35 miles; Carthage-Wilna Road No. 624, Jefferson County, 3.09 miles; Black River-Watertown Road No. 5,005, Jefferson County, 4.84 miles; Couse-Luther Road No. 583, Rensselaer County, 3.40 miles; Eagle Mills-Clum's Corners Road No. 631, Rensselaer County, 2.25 miles; Schodack Centre-Valtie Road No. 5,029, Part 2, Rensselaer County, 2 miles; Manchester-Victor Road No. 637, Ontario County, 5.30 miles; Canandaigua Village Road No. 5,015, Ontario County, 1.19 miles; Geneva Road No. 638, Ontario County, 1.02 miles; Greenwich-Battenville Road No. 724, Washington County, 3.98 miles; Salem-Granville Road No. 5,033, Part 1, Washington County, 2.96 miles; State Line-Orangeberg Road No. 728, Rockland County, 2.82 miles; Congers-Long Clove Road No. 5,002, Rockland County, 1.61 miles.

Bids will be received until 1 p. m., Feb. 16, for: Potsdam-Colton Road No. 735, St. Lawrence County, 7.90 miles; Potsdam-Canton Road No. 5,032, St. Lawrence County, 5 miles; Crary ville-State Line Road No. 762, Columbia County, 6.02 miles; Blue Stores-Livingston Road No. 5,004, Columbia County, 2.50 miles; West Plattsburgh Road No. 776, Clinton County, 7.26 miles; Golden's Bridge-Croton Falls Road 775, Westchester County, 4.42 miles; White Plains Town Line-Harrison Road No. 780, Westchester County, 2.91 miles; Armonk-Byram Lake Road No. 5,003, Westchester County, 3.44 miles; Mariaville-Montgomery County Line Road No. 789, Schenectady County, 5.75 miles; Scotia-Wyatts Road No. 5,030, Schenectady County, 2.25 miles; Hunters-Windham Road No. 597, Section 2, Greene County, 3.39 miles; Catskill-Saugerties Road No. 5,027, Part 1, Greene County, 2 miles; Kent-Towner Road No. 798, Putnam County, 2.78 miles; Croton Falls-Brewster Road No. 5,006, Putnam County, 1.80 miles; Luzerne-Lake George Section 1, No 804, Warren County, 7.13 miles; Hogansburg-Bombay Road No. 820, Franklin County, 6.52 miles; Malone-Miora Road No. 5,031, Part 2, Franklin County, 3 miles; Saranac Lake-Bloomingdale Road No. 821, Essex County, 5.58 miles; Ausable Forks-Jay Road No. 5,011, Essex County, 3.45 miles; Crown Point-Fort Henry Road No. 841, Essex County, 4 miles.

Bids will be received on the following roads until 1 p. m., February 18, for: Pawling Village Road No. 5,009, Dutchess County, 1.50 miles; Newburgh-Cedar Hill Cemetery Road No. 5,007, Orange County, 3.28 miles; Jericho Turnpike Road No. 5,008, Suffolk County, 3.56 miles; Slingerlands-New Scotland Road No. 5,010, Albany County, 2 miles; Fleming-Auburn Road No. 5,012, Cayuga County, 2.75 miles; Bainbridge-Unadilla Road No. 5,013, Part 1, Chenango County, 4.13 miles; Chittenango-Oneida Road No. 5,014, Part 1, Madison County, 3.15 miles; Camillus-Fairmont Road No. 5,016, Onondaga County, 3.09 miles; Clyde-Savannah Road No. 5,017, Part 2, Wayne County, 3 miles; Reading-Dundeed Road No. 5,018, Part 1, Yates County, 2 miles; Lake Shore-Lackawanna City Road No. 5,019, Erie County, 1.89 miles; E. Pembroke-Pembroke Road No. 5,020, Genesee County, 3.43 miles; Leroy-Caledonia-Mumford Road No. 5,021, Livingston County, 3.98 miles; Albion-Holley Road No. 5,025, Orleans County, 2.46 miles; Rerey-Warsaw Road No. 5,024, Wyoming County, 2.67 miles; Binghamton-Windsor Road No. 5,022, Part 2, Broome County, 3 miles; Cuba-Black Creek Road No. 5,023, Part 1, Allegany County, 2.67 miles; Corning-Painted Post Road No. 5,026, Steuben County, 3.56 miles; Oneida Castle Village-Vernon Village Road No. 5,034, Oneida County, 1.50 miles; Monticello-Liberty Road No. 5,035, Part 1, Sullivan County, 2.50 miles. S. Percy Hooker, T. Warren Allen and Robert Earl are the State Highway Comrs.

NEW YORK, N. Y.—Bids are asked by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., Feb. 9, for regulating, grading and paving various streets in Brooklyn; also for delivering binder stone, Portland cement, gravel, flagstone, pitch, sand, tar melting and gravel heating trucks, hardwood, road oil, asphalt blocks, paving brick, flus or residuum oil, refined asphalt, etc.

RALEIGH, N. C.—Bids are asked by Wm. W. Willson, City Clk., until Feb. 2 on 25,-000 sq. yds. of brick pavement on Fayetteville and other streets. R. B. Seawell is City Engr.

NEWBERN, N. C.—The contract for 48,-000 sq. yds. of brick paving has been awarded to BENZ & PAGE, of Charleston, S. C., at $1.43 per sq. yd. F. T. Patterson is City Clk.

GIBSON, N. C.—Bids will be received until Feb. 7 by the County Road Commissioner for constructing 2.6 miles of sand and clay roads. Bids will be received for whole or part. J. C. Mason is Chn.

CANTON, OHIO.—The following streets will be paved this year with vitrified paving block: East Eighth St., Cherry to Young St., 8,000 sq. yds.; West Lake St., Cleveland Ave. to Fulton St., 10,000 sq. yds.; N. McKinley Ave., Third to Lake Sts., 12,000 sq. yds. and East North St., Cherry to Mahoning St., 8,000 sq. yds.; also curbing and flagging about three miles of streets. P. H. Weber is City Engr.

BEXLEY (Columbus post-office), OHIO.—Bids will be received until Jan. 29 by Joseph Maeder, Clk., Marion Township, Bexley Station, Columbus, for furnishing and delivering as ordered throughout the year 1910, 8,000 yds. of crushed limestone, size over a ¾-screen, to be delivered on South High St., Parsons Ave. and other streets.

LA FAYETTE, IND.—Bids are asked by John P. Foresman, Audr., of Tippecanoe County, until 10 a. m., Feb. 9, for the construction of a gravel road on the line between Wabash and Tippecanoe Townships, known as the Wettschurack Road.

EVANSVILLE, IND.—The Board of Public Works has ordered plans on which bids will be asked for paving portions of the following streets: Iowa St., Lincoln Ave., Main St., Powell Ave., Chandler Ave., Grand Ave., Governor St., Edgar St., Louisiana St., and Tennessee St.

ELKHART, IND.—The Board of Public Works is preparing to ask for bids for paving of South Second St., Hickory and Reding Sts., with standard pavement to be selected.

MOUNT PLEASANT, MICH.—Bids will be received by H. H. Hunter, City Clerk, until 8 p. m., Feb. 7, for grading and paving with brick, on a concrete foundation, certain portions of Broadway and Main St.

DETROIT, MICH.—The following bids were received on Jan. 6 by the Department of Public Works for furnishing about 1,000,000 paving bricks during fiscal year 1910 (price given per sq. yd.): Detroit Brick Co., 77.9 cts.; Michigan Brick Co., 77.9 cts.; Bessemer Lime Stone Co., 83 cts.; Deckman Duty Brick Co., 81.2 cts. and 83 cts.; F. B. Stevens, 83 cts.; Metropolitan Co., three bids, 82.4 cts. to 83 cts.; Novelty Brick Co., 82 cts.

URBANA, ILL.—G. A. PETER, of Sycamore, Ill., has secured contract for paving South Goodwin Ave., at $6,500. Sarco asphalt will be used. M. S. Morgan is City Engr.

ALTON, ILL.—It is proposed to pave about two miles with brick at a cost of about $70,-000. B. B. Stakemiller, Commercial Bldg., Alton, is Engr.

PEKIN, ILL.—Bids are asked until 2 p. m., Feb. 3, by the Board of Local Improvements for the construction of the improvement of parts of Capitol, Elizabeth, St. Mary and Sabella Sts. Also at 2.10 p. m., Feb. 3, for the improvement of parts of Susannah, Broadway, Fifth and Sixth Sts.

BURLINGTON, IOWA.—Bids will be received by J. F. Winters, City Engr., about March 1 for ten blocks of concrete, brick or asphalt paving on Arch St.

ATLANTIC, IOWA.—Bids will probably be received about Feb. 1 for about 6,900 ft. of combination brick and asphalt paving. The Iowa Engineering Co. is Engr., Clinton, Iowa.

KANSAS CITY, MO.—The Board of Commissioners of Jackson County contemplates macadamizing the Ballan. R. T. Proctor, County Engr., is making estimates.

ST. LOUIS, MO.—The Board of Public Improvements on Jan. 18, approved the drafts of ordinances for sidewalks on 43 streets. These have been sent to the House of Delegates and Council.

JEFFERSON BARRACKS, MO.—Bids will be received until 11 a. m., Feb. 5, by Capt. Stanley H. Ford, Q. M., U. S. A., for constructing roads, walks, etc., at this post. Bids for this work were received on Jan. 5, but were all rejected.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported upon the estimated cost of the following street improvements: North and West 78th St., concrete sidewalks, $19,-100; East Jefferson St., asphalt paving, $28,-500; 20th Ave. South, asphalt paving, $55,-000; 36th Ave., etc., sewers, $39,000; West Garfield St., planking, $48,500; Washington St., concrete walks, $5,200.

PASADENA, CAL.—It is proposed to pave Broadway, from Green St. to California St. with vitrified brick at a cost of about $20,-500. Contract will not be let for about three months. Heman Dyer is City Clk. S. J. Van Orman is City Engr.

SAN FRANCISCO, CAL.—The Board of City Supervisors on Jan. 3 ordered granite curb, artificial stone sidewalks, bituminous rock pavement and 10-in. vitrified brick culverts, etc., on the four angular corners of Polk and Greenwich Sts.; a bituminous rock pavement at crossing of Greenwich and Buchanan Sts.; a bituminous rock pavement and granite curbs on Ninth Ave., between K and L Sts., and an ironstone pipe sewer, etc., in the center line of Webster St., from Lobbard St. to Magnolia Ave., and at the intersection of Magnolia Ave. and Webster St. Marsden Manson is City Engr., Hewes Bldg.

SANTA BARBARA, CAL.—The PATILLO CONTRACTING CO., of Los Angeles, has contract for asphalt paving on Bath St., from the boulevard to Montecito St.

PUBLIC ROAD CONSTRUCTION.—A report has been received from an American legation in a foreign country giving details relative to the construction of a public road in the country in question. The report was accompanied by specifications of construction, copies of the forthcoming award of the contract, and one plan, drawn to scale, in profile of the road; all of which are on file in the Bureau of Manufactures, Dept. of Commerce and Labor, Washington, D .C., and can be obtained by interested firms upon application. The total cost of the road is estimated at about $10,000. In applying for addresses, etc., refer to file No. 4426.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

ROCKLAND, ME.—A cement plant costing about $1,000,000, with a capacity for producing 1,500 bbls. per day, will be constructed by the New England Portland Cement Co. in Knox County during the present year and placed in operation in season to supply the spring market of 1911. The necessary mineral properties have been purchased. The real estate holdings approximate 500 acres. The lime properties are practically all in the town of Thomaston, but the company has not fully decided whether its factory will be located there or on the water front at Ingraham Hill. All of the buildings will be constructed of concrete. The company will operate its own railroad under the charter which was granted to the Rockland & Thomaston Cement R. R. by the last Legislature. This railroad will have its beginning near the Dohefty quarry and its terminus at tidewater near Ingraham Hill. Local quarrying will be done by steam shovels and modern quarry equipment. Electricity will be the motive power for the factory, which will have its own power plant. The New England Portland Cement Co. was incorporated with the following officers: Alfred S. Black, Pres.; E. B. MacAllister, Treas.; Miss Ida Rokes, Secy. and Clerk; Directors: A. S. Black, E. B. MacAllister. The original capitalization was $500,000. Since that time the capital stock has been increased to $3,200,000. Of this amount $1,200,000 is preferred and $1,500,000 is common stock.

NEW BEDFORD, MASS.—The Kilburn Mill stockholrers have voted to increase the capitalization from $750,000 to $1,500,000 for the purpose of erecting a new mill of about 50,000 spindles. H. L. Tiffany is Treas.

CHICOPEE FALLS, MASS.—The WESTINGHOUSE, CHURCH, KERR CO., 10 Bridge St., New York, has secured from the Chicopee Mfg. Co. the contract to erect a new weave shed at their plant in Chicopee. It will be built of concrete and steel, about 150 × 240 ft., one story high. Noted last week.

SPRINGFIELD, MASS.—The Northampton Silk Co., which is to manufacture silk hosiery, and is to have the backing of the McCallum Hosiery Co., is having plans drawn for a brick mill, 160 × 70 ft., and two stories high, which will be erected near the present silk finishing mill of the company in Florence. The plans are being drawn by Fox & Gale, Archs., 3 Park St., Boston. Machinery is being bought, and it is planned to have the mill in operation in the fall.

SOUTH LYME, CONN.—Plans for rebuilding the plant of the Niantic Menhaden Oil & Guano Co., at South Lyme, recently destroyed by fire, are being drawn. The main structure will be a concrete building, 150 × 200 ft. The contract will be let soon.

HARTFORD, CONN.—The Kellogg & Bulkley Co., lithographers, 175 Pearl St., Hartford, will erect a brick and steel factory, 75 × 180 ft. Cost, $50,000.

COHOES, N. Y.—Plans are being prepared for a bleachery, 100 × 330 ft., to have at least three stories and basement, for Cluett, Peabody & Co., shirt and collar manufacturers, 433 River St., Troy, to be erected on Peoples Island, Cohoes, at a cost of $300,000. The owners will be ready to receive estimates on all branches of materials about Feb. 15. It has not been actually decided what system of construction will be used. A large amount of machinery will be necessary. E. E. Cluett is Mgr., Troy.

NEW YORK, N. Y.—We are officially advised that the general contract has been awarded to MORTENSEN & CO., 401 West 24th St., for the erection of a 3-story bottling house, 50 × 100 ft., at 431-433 East 55th St., for Peter Doelger, 405 East 55th St. Estimated cost is $60,000. The contractors prepared the plans.

BUFFALO, N. Y.—The Fedders Mfg. Co., Theo. C. Fedders, Pres., 59 Tonawanda St., will build a 2-story brick addition to its plant at Tonawanda St. and West Ave., to cost $38,000.

The Husted Milling Co. is having plans prepared for a warehouse of reinforced concrete construction, which it will add to its grain and feed mill and elevator plant at Elk St. and the New York, Chicago & St. Louis R. R. Work will be commenced early in the spring. E. M. Husted is Pres., 816-822 Chamber of Commerce Bldg.

The "Yellow Corn Mill" of the Buffalo Cereal Co., Abbott Road and Lake Shore & Michigan Southern R. R., recently destroyed by fire, is to be rebuilt and equipped at once. Brick and steel will be used in construction. Lawrence E. Harmon is Pres., 44 Dun Bldg., Buffalo.

OSWEGO, N. Y.—Bids for the proposed factory of the Last-long Underwear Co., Oswego, N. Y., will be received at once. The factory will be four stories high, 134 × 60 ft., and will cost in all about $50,000. There will be a smaller building for a dyeing and power plant. The operating force will be increased from 125 to 350.

ROCHESTER, N. Y.—Application for a permit to erect a fireproof boiler house in the rear of 20 Whitney St., to cost $10,000, has been made by the A. J. Bolton Shoe Co. The building is to be 85 × 45 ft. and 22 ft. high.

PATERSON, N. J.—R. G. Cory, Engr., 39 Cortlandt St., New York, will take figures about Feb. 1 for the construction and equipment of an addition to the silk mill in Market St. for the Brilliant Silk Mfg. Co., 38 Greene St., New York, to cost about $45,-000.

YORK, PA.—A saturating and roofing plant will be built by the Lafean Paper Mill Co. The structure will be 60 × 125 ft.

CONNELLSVILLE, PA.—The Bailey Coke Co., Pittsburg, which recently purchased 600 acres of Connellsville coking land in Luzerne and Red Stone townships, Fayette County, Pa., is making arrangements for

the erection of 500 or 600 coke ovens. The plant will be modern and the design of ovens will be that of the longitudinal type. T. J. Mitchell is Gen. Mgr. of the Rainey interests in the Connellsville region.

JACKSON, GA.—An option has been secured on a tract of land on the outskirts of the town, where it is stated that a $1,000,000 textile manufacturing plant, to be electrically driven, will be erected by New York and Boston capital. W. Jordan Massee, Pres. of the Central Georgia Power Co., is interested in the enterprise. The hydroelectric development on the Ocmulgee River is progressing rapidly, and 20,000 HP. will soon be available.

SENOIA, GA.—The Senoia Duck Mill of Senoia, Ga., has been incorporated with a capital stock of $100,000 by L. Ware, Vinde and L. E. Arnall, W. F. Baggarley, H. J. Jones and others. This company has purchased a site for the erection of a plant, details of which have not been announced.

WEST POINT, GA.—The Reed Cotton Mill Co., Ltd., E. B. Reed, Treas., is proceeding with plans to organize a $500,000 corporation and erect a cotton mill here. The site has been acquired and negotiations are under way toward the acquisition of electric power for operation of plant. The company wishes to secure option on 2,000 HP. of the water power to be electrically developed by Chattahoochee Power Co., Columbus, Ga., which plans to build a dam and power plant on Chattahoochee River, twelve miles south of West Point.

BESSEMER, ALA.—A contract was let on Jan. 15 to the BIRMINGHAM CONSTRUCTION CO. for the plant of the Birmingham Horseshoe & Rolling Mills Co., which is to be located at Gordon Heights, near Bessemer. The horseshoe plant will be erected at once and the rolling mills will be built later. The completed plant will represent an outlay of $1,000,000. It is backed by Ohio capitalists.

BIRMINGHAM, ALA.—Announcement has been made that $654,000 had been appropriated for new shops to be constructed by the Louisville & Nashville R. R. Co., at Boyles, a suburb of Birmingham. The plans for the new plant will be sent to T. E. Brooks, Div. Supt., Birmingham, next week and bids will be called for immediately, the shops to be completed for use by next winter.

CHATTANOOGA, TENN.—The Acme Malleable Iron Works, E. C. Felthousen, Pres., will be ready about March 1 to receive bids for the $20,000 addition to its foundry. The building will be a 1-story structure, 147 × 225 ft.

A $1,000,000 plant, employing at the least estimate 1,500 men, to be erected here, is planned by the Metallic Purification Co. The output of the plant will be largely alum and aluminum. The by-product will depend on the chemical analysis of the clays psed..

MIDDLETOWN, OHIO.—Contracts for equipment for the extensive additions to the plant of the American Roller Mill Co., Middletown, Ohio, are expected to be let soon. The improvements include billet and sheet bar, plate, jobbing and a number of finishing mills, as well as additional open hearth capacity.

AKRON, OHIO.—At a recent meeting of the directors of the B. F. Goodrich Co., $1,000,000 was appropriated for buildings to be erected this year. Two 6-story buildings and two power-houses were constructed last year and two 6-story buildings the year previous. W. A. Means is Treas.

CONNEAUT, OHIO.—At a recent meeting of the stockholders of the Conneaut Shovel Co., Conneaut, Ohio, G. W. Benton was re-elected Gen. Mgr., Secy. and Treas., and it was decided to start at once rebuilding its plant which was burned. The new plant will be of brick and larger than the old building. A line of strap back shovels will be added to the specialties formerly manufactured by this company. The company is in the market for a line of presses, shafting, etc.

NILES, OHIO.—It is stated that the Niles Board of Trade has closed negotiations with the Fostoria Glass Specialty Co., whereby that concern will erect in Niles a plant to employ 1,000 men. Cost, $100,000.

DAYTON, OHIO.—The C. W. Raymond Co., which is planning to construct a foundry and machinery building plant at Dayton, Ohio, will require shop equipment, engine, dynamos, motors, shafting pulleys and pneumatic apparatus.

SEYMOUR, IND.—Bids will be asked soon by the Indianapolis, Columbus & Southern Traction Co. for the construction of a car shop and freight house in this city. Bids will be received at the company office in Columbus, Ind.

WABASH, IND.—The Standard Automobile Co., capital stock $500,000, has been incorporated, to build and equip an automobile plant. G. J. Kobusch, W. S. McCall and W. B. Phelps are Dirs.

MUNCIE, IND.—The Moore Mfg. Co., with a capital stock of $100,000, will build or establish a factory plant. C. G. Moore, E. J. Hickson and J. L. Moore are Dirs.

PORTLAND, IND.—The Portland Body Works Co., capital stock $100,000, will erect and equip a plant to manufacture bodies and parts of vehicles. W. H. Hood, J. A. Long and Frank Webb are Dirs.

DETROIT, MICH.—The management of the Detroit Stove Works, Detroit, is having plans prepared for a new factory building 66 × 184 ft., five stories high.

The Dominion Motor Car Co., recently organized at Detroit, will proceed with the erection of a factory here. For the present headquarters are to be maintained at 24-26 West Pitt St., Detroit.

WAUSAU, WIS.—The Wausau Paper Mills Co. will rebuild its sulphite mill this summer at a cost of between $50,000 and $100,000. The changes will increase the capacity 50 tons. The following officers were elected: Pres., Walter Alexander, Wausau; Vice-Pres., Alexander Stewart, Wausau; Treas., E. A. Edmonds, Appleton; Secy. and Mgr., W. L. Edmonds, Wassau; Dirs., Alexander Stewart, Walter Alexander, W. L. Edmonds, Wausau; A. C. Merryman, Marinette, and E. A. Edmonds, Appleton.

MILWAUKEE, WIS.—Plans are being made by the Charles H. Stehling Co., of Milwaukee, Wis., for the construction of a factory building. Motor-driven machinery will be installed.

CHIPPEWA FALLS, WIS.—Plans are being prepared by the Chippewa Falls Shoe Mfg. Co. for the construction of a factory. The equipment required will include power machinery, blowers and sprinkling system. Electric motor-driven machinery is under consideration.

JUNCTION, WIS.—The Pioneer Graphite Co. has decided to reconstruct its plant near Junction.

ST. PAUL, MINN.—The St. Paul Foundry Co., St. Paul, Minn., is providing for an increase in its facilities. Erection of a 150-ft. stack for the power-house was begun recently.

ST. LOUIS, MO.—The Steel Roof Truss Co. has announced that it would erect a fatcory in St. Louis County. The plant will be located at Valley Park. The company, which recently was incorporated, has purchased five acres of land from the Valley Park Land Co. on switch property adjoining the land now owned by the Mississippi Valley Glass Co. The company will begin work on its factory within the next two weeks. The structure will be of steel construction and will cost about $25,000. It will be 175 ft. long and will give employment to more than 100 men. The company will not manufacture steel, but will use the plant for the fabrication of structural steel. J. H. Koehler is Pres. and Treas. of the corporation; Francis H. Krenning, Vice-Pres., and H. A. Ferguson, Secy. and Gen. Mgr.

The John C. Kunferle Foundry Co. will occupy at Hall, Wright and First Sts. a $100,000 foundry, and recently a permit was granted to construct a foundation at 40 to 60 Wright St., to cost $8,000. The building will occupy the lot 80 × 280 ft. in size, giving the foundry nearly 25,000 sq. ft. of space. The building will be three stories in height and will increase the present capacity of the Kupferle company about one-third. The new shop is one of the results of the sale by the company of the lot which they now occupy at the northwest corner of Second and Mound Sts., fronting 136 ft. on Second St. This lot was sold to the Missouri, Kansas & Texas Ry. for its terminals, the Kuperle company receiving, it is said, about $250,000 for it. The new lot has a railway switch connecting with the Terminal's tracks. The building will be completed March 1.

SPOKANE, WASH.—A plant will be erected at First and Stone Sts., Spokane, Wash., by the Spokane Ornamental Iron & Wire Works. There will be a structure 60x142 ft., and another 30x90 ft.

TACOMA, WASH.—It was announced recently by J. D. Farrell, Vice-Pres. and Gen. Mgr. of the Oregon & Washington R. R. Co., that plans are completed for railroad yards and car shops for the Puget sound and Gray's Harbor lines, which the company will build at South Tacoma, adjoining the $2,000,000 carshops plant of the Northern Pacific. The work will be started at once. The yards of the Harriman line will be considerably over a mile long, reaching from South 40th to South 64th Sts. There will be no grade crossings. The proposition involves excavating a bluffside, filling in and leveling to the amount of a million yards. The yards will have a storage capacity for more than 2,200 freight cars. There will be a gravity switching yard. Near the center of the yards several elevated tracks will permit the segregation of freight trains by gravity for making up new trains to be dispatched over the various divisions. To begin with the car shops will comprise a 32-stall roundhouse, a power-house, blacksmith shops, office and storehouse, two machine and erecting shops, each 130x200 feet, coach and paint shops, freight car repair shops, transfer tables, lumber sheds, icehouse, towerhouse, cranes, depressed tracks and turntables. The shops and yards will cost nearly $1,000,000.

LOS ANGELES, CAL.—The Fulton Engine Works, Los Angeles, Cal., will enlarge its boiler and machine shop equipment during the present year. A contract has recently been taken for Government work on the Salt River project.

MISCELLANEOUS CONTRACTS.

(denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Petersburg, Ill.—BARTSON & MILLARD, of Peoria, Ill., have contract for dredging and drainage work in Menard County. Estimated cost, $45,000.

DITCH.—Frankfort, Ind.—Contract has been awarded by Wm. A. Robison, Drainage Comr., for constructing the Joseph W. Yundt Ditch to W. L. FISHER, of Frankfort.

DITCH. — Logansport, Ind. — WARE & PASH, of Rochester, Ind., have been awarded contract for the John R. Kessler ditch in Adams and Bethlehem Townships, at $4,110.

TILE.—Wapella, Ill.—The commissioners of the Wapella drainage district No. 1 have awarded the contract for furnishing the tile for the ditch to H. S. Walter, of Cisco, Ill., at $13,406.

DITCH.—Fairfield, Ill.—LEACH BROS., of Goldengate, Ill., have secured contract for digging the Elm River drainage ditch, at $7,000; and the Goldengate drainage ditch at $20,000.

DRAINAGE.—Sidney, Iowa.—G. A. McWILLIAMS, of Walnut, Ill., has contract for construction of the Knox drainage ditch, containing about 1,000,000 cu. yds. of excavation. It will be about twelve miles long.

DITCH.—Indianapolis, Ind.—Bids will be received by John D. Morgan, Supt. Construction, on Jan. 29 at the office of Weaver & Young, attorneys, 730 Lemcke Bldg., for constructing a ditch and drain in Marion County.

DRAINAGE.—Mattoon, Ill.—Contract for a drainage system in the southeast portion of the city has been awarded by the Commissioners of the Kickapoo Drainage District, to THORNTON & MICHAEL, of Mattoon, at $7,817.

DITCH.—Marion, Ind.—Bids will be received by D. M. Murphy, Supt. Construction, at the Drainage Commissioner's office, Marion, until 2 p. m. Jan. 29, for construction of the Fadely ditch, Grant County. Estimated cost, $5,444.

EARTHWORK.—Fort Leavenworth, Kan.—Bids were received by Capt. Wm. D. Davis, Q. M., on Jan. 8 for grading approximately 24,000 cu. yds. of earth. Lowest bidders were Joyce Bros. and Bagwell M. A. Nogan, both of Kansas City, Mo.

RIFLE RANGE.—Blauvelt, N. Y.—Bids will be received by the State Board of Armory Commissioners, Albany, N. Y., until noon, Feb. 10, for construction, grading, telephones and scorers' desks for the N. Y. State Rifle Range, Blauvelt, N. Y.

LIGHT VESSEL.—Washington, D. C.—Bids will be received by the Lighthouse Board, Washington, until 2 p. m., Feb. 10, for furnishing material and labor necessary for the construction, equipment, and delivery of the single-screw, wood, steam light-house tender "Woodbine."

CANAL.—Oklahoma City, Okla.—Bids will be received by the Board of County Commissioners until Feb. 14 for construction of a canal through Deep Fork Drainage District No. 1. Estimated cost, $100,000, including necessary bridges. Canal will be about 13¼ miles long.

DITCHES.—Eldora, Iowa.—Contract was not awarded on Jan. 12 by the Board of Supervisors of Hardin County for construction of a tile ditch and drain in Buckeye Township. New bids will be received until March 7. There will be let at the same date two other tile ditches. R. A. Vigars, County Audr.

DITCHES.—Madison, Minn.—Bids will be received until 2 p. m., Feb. 9, by A. G. Shogren, County Audr., for constructing Judicial Ditch No. 3. Estimated cost, $21,859. Bids will be received at the same time for tile ditch No. 37, estimated cost, $7,500, and for tile contract on Ditch No. 34, estimated cost of which is about $22,000.

LEVEE.—Marksville, La.—Bids will be opened at the office of the Red River and Bayou des Glaizes Levee Board at Marksville, La., on Feb. 1, for the construction of the David's Ferry South No. 2 levee, on the right bank of Red River, in Avoyelles parish. The levee is to be four miles in length, and to contain about 350,000 cu. yds. of earth.

COAL-HANDLING PLANT.—North Chicago, Ill.—Bids will be received by the Bureau of Navigation, Navy Dept., Washington, D. C., until noon, Feb. 15, for the construction of a coal crushing plant and ash handling plant at the naval training station, Great Lakes, North Chicago, Ill. Specifications are on file at office of Engineering News, New York.

DRAIN.—Nevada, Iowa.—Bids were received on Jan. 14 by the County Auditor for furnishing material and constructing county drain No. 20. The work includes seven miles of 8-in. to 20-in. tile drain. Estimated cost, $20,000. John M. Wells County Engr., Nevada. Contract was awarded to MORSE & HAUGHSTED, of Nevada, at $18,500.

LEVEE.—Woodson, Ark.—The Board of Directors, Woodson Levee District, Woodson, will receive bids until 10 a. m., Feb. 9, at the office of Lund & Hill, 201½ W. Second St., Little Rock, Ark., for the following work: Nine miles levee, 165,700 cu. yds. excavation, eight culverts, eight gates, flood gate, reinforced concrete. Estimated cost, $45,000.

FENCE AND GATES.—Winnipeg, Man.—Bids will be received until Feb. 28, for the erection of five-wire fence and gates along both sides of the city's transmission line right-of-way between Winnipeg and the Brokenhead River. Plans and specifications may be obtained at the office of the power engineers, Smith, Kerry & Chace, Carnegie Library Bldg., Winnipeg. M. Peterson, Secy., Board of Control.

DREDGING.—San Pedro, Cal.—The NORTH AMERICAN DREDGING CO., Merchants Exchange Bldg., San Francisco, according to the Los Angeles "Express" has obtained a contract to dredge both the east and west channels of the Outer Harbor Dock & Wharf Co.'s concession, known as the Miner fill. The contract involves the removal of 2,000,000 cu. yds. of material. Gervaise Purcell is Engr. for the Outer Harbor Dock & Wharf Co., Wilcox Bldg., Los Angeles.

BULKHEAD.—Wilmington, N. C.—Bids received on Jan. 12 at the office of Capt. C. I. Brown, Corps Engrs., U. S. A., for constructing a pile and timber bulkhead in Cape Fear River, have been rejected, being considered too high. The following bids were received: H. W. Crouch, Mt. Pleasant, S. C., $4,580; G. & W. Mfg. Co., New York, $6,750; Richard Parrott, Jr., Newburgh, N. Y., $7,679; J. T. McMahon, Norfolk, Va., $5,826; Wilmington Iron Works, Wilmington, $12,893.

*EARTHWORK.—Colorado Springs, Colo.—Bids will be received by the Costilla Estates Development Co., 56 Bank Building, Colorado Springs, until noon, Feb. 21, for the construction as a whole, or separately, in Costilla County, Colorado, of the Sanchez dam, about 500,000 cu. yds. earthwork; the Sanchez dike, about 250,000 cu. yds. earthwork. The Culebra-Sanchez Canal, about 250,000 cu. yds. earthwork. Together with necessary controlling works and about 15,000 cu. yds. of rock excavation. O. V. Stout, Ch. Engr.

BARGE CANAL.—Albany, N. Y.—Bids will be received until noon, Feb. 16, by F. C. Stevens, Supt. Public Works, for the following work: Contract No. 49, E. Canal, Section 8—For constructing the [illegible] from a point about 500 ft. east of Yelverton Mills bridge to Wayne-Monroe County line. Length, 6.18 miles. Contract No. [illegible] Erie Canal, Sections 9 and 10—For constructing guard gate superstructures as follows: About 1.3 miles east of Spencerport, near west line of Brockport, 1.5 miles east of Middleport. Noted last week.

*DREDGING.—Michigan City, Ind.—Bids were received as follows on Jan. 4 by Maj. Thomas H. Rees, Corps Engrs., U. S. A., Chicago, Ill., for dredging the harbor at Michigan City. (About 100,000 cu. yds. scow measurement; and removal of about 1,000 ft. B. M. of wreckage, etc.): Samuel O. Dixon, Milwaukee, Wis., $19,017; Buffalo Dredging Co., Buffalo, N. Y., $20,020; Chas. Simons, Two Rivers, Wis., $14,250; Reilling Bros. Co., Green Bay, Wis., $14,510; Standard Construction Co., Chicago, $11,600; The FitzSimons & Connell Co., Chicago, $12,265; Great Lakes Dredge & Dock Co., Chicago, (recommended for acceptance), $10,995.

CEMENT.—The Secretary of the Interior has awarded the following contracts for furnishing Portland cement for use in connection with the Government irrigation projects: To the ATLAS PORTLAND CEMENT CO. for the delivery of 14,000 bbls. of cement f. o. b. cars at Hannibal, Mo., for the Belle Fourche project, South Dakota, and the Strawberry Valley project, Utah, at $2.05 per bbl. To the COLORADO PORTLAND CEMENT CO., Portland, Colo., for 15,000 bbls. for the Uncompahgre Valley project, Colorado, at $1.15 per bbl. To the MARQUETTE CEMENT MFG. CO., of LaSalle, Ill., for 6,000 bbls for the northern district, exclusive of the Blackfeet project, at 85 cts. per bbl.

U. S. POSSESSIONS.

ENGINEERING SUPPLIES.—Panama.—Bids were received as follows on Jan. 24 by the Isthmian Canal Commission, Washington, for furnishing 201,200 lbs. of saltpeter dynamite: Keystone Powder Co., Emporium, Pa., $25,150; E. I. Dupont de Nemours Powder Co., New York, $27,162. Also for eight main cables, 2¼-in. diameter, each 800 ft. long, for Lidgerwood cableway at Gatun Locks: TRENTON IRON CO., Trenton, N. J., $10,680 (awarded contract); A. Leschen & Sons Rope Works, St. Louis, $11,426.

EXAMINATIONS.

CITY ENGINEER.—Moose Jaw, Sask.—A City engineer is wanted at once by the city of Moose Jaw, Sask. Applications, stating fully, qualifications, experience, salary required, etc., should be addressed to the Mayor of Moose Jaw.

†DRAFTSMEN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 9-10, to secure eligibles from which to make certification to fill two vacancies in the position of topographic draftsman (male) in the Coast and Geodetic Survey, one at $1,000 and the other at $900 a year, and vacancies requiring similar qualifications as they may occur in any branch of the service, unless it shall be decided in the interests of the service to fill either or both of the vacancies by reinstatement, transfer or promotion. The salary of the position of topographic draftsman ranges usually from $1,000 to $1,500 a year, and for copyist topographic draftsman from $900 to $1,500 a year. Both men and women will be admitted to this examination. Age limit, 18 years or over. Application Form 1312.

†JUNIOR CHEMIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 3, to secure eligibles from which to make certification to fill a vacancy in the position of junior chemist (explosives) in the Geological Survey, at a salary ranging from $900 to $1,200 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. Age limit, 21 years or over. Application Form 1312.

†In accordance with a recent act of Congress an applicant for this examination, to be eligible for the apportioned service at Washington, D. C., will be required to be examined in the State or Territory in which he resides and to show in his application that he has been actually domiciled in such State or Territory for at least one year previous to the examination.

INDUSTRIAL NOTES.

THE PENNSYLVANIA R. R. CO. issues a statement showing locomotives and cars, also floating equipment, ordered by the New York, Philadelphia & Norfolk R. R. Co. during 1909, for 1910 delivery: 4 P. R. R. H-6-b consolidation improved type freight engines; 2 P. R. R. B-8 standard shifting engines, being built at Juniata shops, P. R. R. Co.; 115 P. R. R. standard Class X1 box cars, with pressed steel underframe, 100,000 lbs. capacity, being built at Altoona car shops, P. R. R. Co.; 3 large bay tugboat, steel hull, for towing barges across Chesapeake Bay; 1 large bay barge, steel, capacity 30 freight cars, for transfer of cars across Chesapeake Bay; 1 harbor barge, steel, capacity, 12 freight cars, for transfer of freight in Norfolk Harbor.

THE INTERNATIONAL CONDENSER CO., 1224 First National Bank Bldg., Chicago, has taken up the Colwell condenser, which was first introduced some years ago but not pushed to any extent on account of the inventor's death. The special feature of this condenser (which was described in our issue of Dec. 25, 1902), is that it operates on less than 1 lb. of water per pound of steam. A spray of water is played upon an

exposed tube plate, and the watery vapor caused by the water striking the hob plate and tube ends is drawn through the tubes by a fan absorbing the heat more rapidly than the solid water passing through the tubes of an ordinary surface condenser. Condensers of the above type are in use at the Bridgeport (Conn.) works of the American & British Mfg. Co., the L. S. Donaldson Co., Minneapolis, the Western Cold Storage Co., Chicago, etc.

THE ALLIS-CHALMERS CO., of Milwaukee, Wis., reports an order for machinery for the tie-treating plant of the Buffalo, Rochester & Pittsburg Ry. It includes treating machinery which will consist of one treating cylinder 6 × 98 ft., measuring and working tank, two creosote storage tanks of 100,000 gallons capacity, together with air compressor, vacuum pump, jet condenser, pressure and general service pumps, and a tubular boiler. The Casparis Stone Co. has placed an order with the same company for two large stone-crushing plants, one at Havre de Grace, Md., and the other at Patterson's Creek, W. Va. This is said to be the largest single order ever placed for stone crushing machinery. The equipment of the Havre de Grace plant is as follows: Gates breaker with manganese steel mantle and combination concaves; 60-in. pan conveyor, 133 ft. on centers; four 5 × 20 ft. revolving screens; four breakers; two elevators, 68 ft. on centers; one 36-in. troughing belt conveyor, 60 ft. on centers; nine induction motors for driving the various machines; one 750kva., steam turbo-alternator; one 22½-KW. motor generator set for furnishing excitation current while running and one 22½-KW. engine-driven exciter for starting; one switchboard, one 36-in. Tomlinson condenser; four 316-HP. Heine water tube boilers; one feed water heater and duplicate boiler feed pumps. The Patterson's Creek plant has the power apparatus duplicating that in the Havre de Grace plant, but the crushing machinery is slightly different. This consists of five Gates breakers; four 5 × 15-ft. and two 5 × 20-ft. revolving screens; elevator; two 36-in. troughing belt conveyors; nine induction motors of 15-HP. to 200-HP. for driving the various machines.

CROCKER-WHEELER COMPANY, manufacturers and electrical engineers, Ampere, N. J., report recent sales aggregating more than 5,000-HP. in direct current motors and approximately 2,000-KW. in direct current generators and 2,000-KVA in A. C. generators. Among these sales is one to the Bethlehem Steel Co. of South Bethlehem, Pa., calling for 5 compound wound interpole motors with a total output of 3,600 HP. Two of these machines have a capacity of 1,000 HP. each at a speed of 285 r. p. m. This company also ordered 19 of the well-known C-W mill motors with a combined capacity of nearly 800 HP. These orders will be an addition to the present equipment at the Bethlehem Steel Company's works of 10,900 HP. in C-W. motors. Another order calls for one 1,200-KVA., A. C. generator to be used for light and power in the plant of Miami Copper Company, Globe, Ariz. This generator is to operate at 107 r. p. m. and furnish 25 cycle, 3-phase current at 6,600 volts. Among the orders for alternating current apparatus is one for the plant of the Virginia Bridge & Iron Company, calling for two 200-KVA., 200 r. p. m., 60-cycle, 3-phase, 2,300-volt synchronous motors. This concern also ordered one 50-HP., compound wound, 230-V., direct current motor. Other important sales are as follows:

Two 2,300-volt, 60-cycle, 3-phase alternators with a combined capacity of 280-KVA. to be shipped to the Western Electric Light Co., Weston, Mass.; one 600-KVA., 600-volt, 171- r.p.m., 3-phase alternator for the Landes, Frary & Clark Co., New Britain, Conn.; a 1,500-KVA. generator is at present being constructed for this company; one 250-KW., 200-r.p.m., 550-volt generator for the Burton Powder Co., Quaker Falls, Pa.; two 250-volt, D.-C. generators with a total capacity of 200-KW. for the Flannery Bolt Co., Bridgeville, Pa.; two 250-KVA., 60-cycle, 3-phase, 480-volt generators, sixteen 20-HP. induction motors, three 50-KVA., 440/110-volt, 60-cycle transformers, one 35-KW., 125-volt, D.-C. generator, and one 25-KW. motor generator set for the Textile Building Co., of Clifton, N. J.; sixteen 500-volt D. C. motors with a total of 197 HP. and one 90-KW. generator to be shipped to the E. D. Jones & Sons Co., Pittsfield, Mass.

CONTRACT PRICES.

(denotes that this work is advertised in Engineering News.)*

*CATSKILL AQUEDUCT.—New York, N. Y.—Bids were opened on Jan. 11 at the office of the Board of Water Supply for Contract 52, which is for the construction of portions of the White Plains division of the Catskill aqueduct, the work including three tunnels on the hydraulic gradient aggregating 1.6 miles in length, one being 17 ft. high × 13½ ft. wide inside, and two 17½ ft. high × 13¾ ft. wide inside; and about 2.8 miles of plain concrete conduit known as cut-and-cover aqueduct, 17½ ft. high × 18 ft. wide inside; the work is located in the towns of Mount Pleasant and Greenburgh, Westchester County. Itemized bids were as follows: (A) Pittsburg Contracting Co., 1942 Forbes St., Pittsburg, Pa.; (B) J. F. Cogan Co., Brewster N. Y.; (C) Carter Construction Co., 134 La Salle St., Chicago; (D) Breuchaud-Winston Co., 290 Broadway, New York; (E) David Peoples, Betz Bldg., Philadelphia, Pa.:

		(A)	(B)	(C)	(D)	(E)
67,000	cu. yds.	removal of top-soil	$0.45	$1.00	$0.50	$0.80	$0.45
40,000	" "	open-cut excav., Sta. 155 + 01 — 156, & 210-219, Type A	.55	1.40	1.20	.80	.88
65,000	" "	open-cut excav., Sta. 219-229, 242-273 + 50, 342-350, Type B	.55	.70	.80	.80	.65
33,000	" "	open-cut excav., Sta. 229-242, Type A	.55	.55	.70	.80	.55
40,000	" "	open-cut excav., Sta. 273 + 50 — 295 + 47, Type A	.55	1.25	1.10	.80	.90
120,000	" "	open-cut ex., Sta. 311 + 28 —313 + 75, 337 + 50-342, 350-365, Type A	.55	.75	.90	.80	.55
125,000	" "	open-cut excav., Sta. 374 + 50 — 407, Type A	.55	.90	1.10	.80	.70
20,000	" "	refill and embank., Sta. 155 + 01 — 156, & 210-219	.30	.25	.30	.20	.27
63,000	" "	refill and embank., Sta. 219-229, 242-273 + 50, & 342-350	.30	.25	.25	.20	.27
26,000	" "	refill and embank., Sta 229-242	.30	.25	.25	.20	.27
40,000	" "	refill and embank., Sta. 273 + 50 — 295 + 47	.30	.25	.25	.20	.27
57,000	" "	refill and embank., Sta. 311 + 28 — 313 + 75, 337 + 50 — 342, & 350-365	.30	.25	.25	.20	.27
42,000	" "	refill and embank., Sta. 374 + 50 — 407	.30	.25	.25	.20	.27
56,000	" "	surface dressing and grassing	.40	.25	.70	.50	.50
76,000	" "	concrete masonry for aqueduct in open cut and on embankment	5.25	5.00	5.00	5.25	5.50
3,500	" "	concrete masonry for filter connection chamber, culverts, etc	8.00	10.00	6.00	6.00	5.75
2,700	" "	reinforced concrete	10.00	15.00	10.00	10.00	9.00
100	" "	brick masonry not in tunnel	20.00	15.00	10.00	14.00	16.00
500	" "	rubble masonry and paving in mortar	3.00	4.00	5.00	3.25	5.00
1,500	" "	dry rubble masonry and paving	4.00	3.00	4.00	2.50	3.00
2,500	" "	sand, gravel and broken stone	3.00	1.50	2.00	1.50	2.00
1,000	" "	surfacing macadam roads	3.00	2.00	2.00	2.50	3.00
3	sluice-gates for permanent works		100.00	100.00	100.00	90.00	100.00
20	gates and valves for works of sanitation		25.00	50.00	10.00	40.00	50.00
5	tons cast-iron pipe and special pipe castings		100.00	100.00	100.00	90.00	100.00
7,000	lin. ft. tile pipe, 6-in. or less in diameter		.25	.25	.50	.35	.30
500	lin. ft. tile pipe, 8-in. to 12-in. inclusive, in diameter		.35	.50	.75	.90	.75
300	lin. ft. tile pipe, larger than 12-in. and not over 18-in. in diameter		.75	1.00	1.25	1.40	1.50
140	M. ft. B. M. timber and lumber not in tunnel		60.00	50.00	60.00	50.00	60.00
	Testing 3 portions of aqueduct		250.00	500.00	1,000.00	500.00	700.00
900	lin. ft. of excavation, testing portions of aqueduct over 200 ft. in length		5.00	2.00	3.25	2.00	2.00
45	lin. ft. shaft in earth		250.00	300.00	200.00	300.00	200.00
50	lin. ft. shaft in rock		300.00	300.00	200.00	300.00	250.00
39,000	cu. yds. rock excavation in tunnel		5.50	6.00	5.25	7.00	6.50
1,000	sq. yds. additional trimming in tunnel in rock		3.00	2.00	7.00	3.00	7.00
22,000	cu. yds. earth excavation in tunnel		6.00	5.00	5.25	7.25	5.00
200	cu. yds. enlargement of permanently supported tunnel in earth and rock		10.00	20.00	15.00	7.00	10.00
75,000	lbs. furnishing structural steel roof support		.03	.05	.05	.04	.04
75,000	lbs. erecting structural steel roof support		.01	.01	.03	.02	.02
1,200	M. ft. B. M. permanent timbering in tunnel		50.00	40.00	65.00	55.00	60.00
100	M. ft. B. M. temporary timbering in tunnel		50.00	40.00	65.00	55.00	60.00
8,805	lin. ft. shaft and tunnel drainage		1.50	1.00	1.75	2.00	2.00
8,725	lin. ft. of tunnel forms for masonry in tunnel		3.00	3.00	4.00	4.00	3.00
33,600	cu. yds. concrete masonry in tunnel		6.00	6.00	6.00	6.00	6.00
1,600	cu. yds. excess concrete masonry in tunnel		2.50	2.50	2.50	2.50	2.50
200	cu. yds. brick masonry in tunnel		20.00	15.00	20.00	15.00	18.00
6,000	cu. yds. dry packing		2.00	2.00	3.00	2.50	2.50
400	lin. ft. drilling holes in rock or masonry		.40	.50	.50	.30	.50
2,300	lin. ft. steel pipe for grouting		.20	.25	.40	.20	.35
18,000	cu. yds. tunnel excavation in compressed air at additional price		1.00	.25	3.00	1.00	5.00
700	M. ft. B. M. tunnel timber in compressed air at additional price		2.00	.50	10.00	10.00	10.00
7,700	cu. yds. tunnel concrete in compressed air at additional price		1.00	.25	1.00	.50	5.00
105,000	bbls Portland cement		1.55	1.40	1.50	1.50	1.60
3,500	cu. yds. grout of Portland cement		3.00	3.00	8.00	4.00	10.00
10,000	lin. ft. stone boundary walls		1.00	.80	1.00	1.10	1.25
10,000	lin. ft. wooden fences and guard-rails		.40	.30	.40	.30	.40
5,000	lin. ft. man-proof fence		.60	.50	.70	.40	.60
225,000	lbs. steel for reinforcing concrete		.04	.05	.04	.06	.04
150,000	lbs. cast iron, wrought iron and steel		.06	.05	.06½	.05	.07
1,000	lbs. bronze		.75	.70	.70	.50	.60
70,000	lbs. galvanizing		.03	.04	.05	.03	.05
6	miles poles and other supports for telephone system		300.00	450.00	225.00	300.00	250.00
35	miles conductors and their appurtenances for telephone system		100.00	50.00	100.00	60.00	100.00
	Install and maintaining tel. inst. and devices furnished by the city		100.00	100.00	75.00	50.00	100.00
	Cleaning up (lump sum)		5,000.00	1,000.00	7,500.00	1,000.00	3,000.00
2	locker houses		2,500.00	2,000.00	1,400.00	1,500.00	1,500.00
				$2,205,852	$2,326,530	$2,435,629	$2,479,155	$2,497,750

Bond required: $475,000. Time: 36 months.

TRADE PUBLICATIONS.

MERCURY ARC RECTIFIERS.—General Electric Co., Schenectady, N. Y. Bulletin 3878. Paper; 5 × 8 ins.; illustrated.

A mercury-arc rectifier for charging electric-driven automobiles is explained in this little booklet.

MOTOR-CYCLES.—The Pierce Cycle Co., Buffalo, N. Y. Paper; 6 × 8 ins.; pp. 15; illustrated.

A four-cylinder motor-cycle is shown in this catalog. The general design of the cycle frame and the internal-combustion engine are shown.

GOLD DREDGERS.—Arthur R. Brown, London, England. Stiff paper; 8½ × 11 ins.; pp. 51; illustrated.

An English firm puts out this catalog describing and illustrating the numerous dredgers which it has furnished for use in Africa, South America, Siberia and other countries. A number of steamships, harbor dredges and similar craft are also shown.

WATER PURIFIER.—American Chemical Engineering Co., Indianapolis, Ind. Paper; 8½ × 11 ins.; pp. 4; illustrated.

In this folder a purifier and softener is shown for use in localities where it is desired to have an automatic and continuous supply of pure, soft water in quantities not exceeding 5,000 gallons per hour. The purifier is described only rather generally, and complete information can hardly be obtained from this publication.

TRAMWAYS.—Consolidated Tramway Co., Inc., Roanoke, Va. Paper; 9 × 6 ins.; pp. 16; illustrated.

This pamphlet describes a new form of wire-rope tramway, in which the carriers have wheels on each side, running on two stationary ropes. These stationary ropes are secured to supports at short intervals, and it is claimed that the tramway may be constructed at a cost of not more than a fourth or a fifth as great as the cost of an ordinary rope tramway. It is stated that a tramway of this type has been built near Salem, Va.

ELECTRICAL INSTRUMENTS. — General Electric Co., Schenectady, N. Y. Bulletin 4708. Paper; 8 × 10½ ins.; pp. 4; illustrated.

The general features of a portable instrument, to be used in the periodical testing of the meters of the central station's customers, are given in this bulletin. It is claimed that the meter here described possesses all the requirements for rapid and accurate testing. It is enclosed in a wooden case and equipped so as to be conveniently carried about.

FIRE BOATS.—General Electric Co., Schenectady, N. Y. Bulletin 4702. Paper; 8 × 10½ ins.; pp. 15; illustrated.

This bulletin discusses the various advantages to be gained by the use of the horizontal Curtis steam turbine for the pumping equipment of fire boats. It is claimed that this turbine is especially adapted, since it operates most efficiently at the high peripheral speeds necessary to obtain maximum output of the centrifugal pumps. Various installations of these turbines on fire boats in New York and Chicago are shown.

RECORDING GAGES FOR PRESSURE AND VACUUM.—The Bristol Co., Waterbury, Conn. Bulletin 1114. Paper; 8 × 10½ ins.; pp. 47; illustrated.

This bulletin shows the complete lines of recording pressure, vacuum and water-level gages marketed by this company. The list shown includes several different models with 6, 8 and 12-inch dials for switchboard, stationary and portable service covering all commercial ranges. The gages themselves are pictured, their mechanisms are described and full-sized reproductions of the various charts available are given.

STEAM TURBINES.—General Electric Co., Schenectady, N. Y. Bulletin 4705. Paper; 8 × 10½ ins.; pp. 11; illustrated.

Curtis steam turbines with horizontal or vertical shafts, intended for use on low-pressure steam lines, are first described in this bulletin. These turbines are largely used to take the exhaust from reciprocating engines which are run non-condensing. A second part of the bulletin describes what is known as "mixed pressure" turbines, where a portion of the rotor receives steam from the boiler at high pressures. This is done to make up for a deficiency of low-pressure steam. A deficiency of low-pressure steam causes the high-pressure nozzles to open automatically, and when the deficiency is relieved these nozzles are also automatically closed.

ELECTRICAL APPARATUS.—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Circulars 1181 and 1506. Paper; 7 × 10 ins.; illustrated.

Circular 1181 shows a line of portable direct-current ammeters and voltmeters which this company has recently made. The unique feature of these instruments is the use of a single air-gap construction which this company originated, and was previously described in Engineering News, Aug. 6, 1908.

Circular 1506 is a reprint of a paper read by Mr. C. E. Stephens before the National Electric Light Association in June, 1909. It is entitled "Recent Types of Arc Lamps and Their Operation." The paper is long and complete, and is illustrated with numerous diagrams and half-tones.

GAS POWER PLANTS.—The Snow Steam Pump Works, Buffalo, N. Y., and the Power & Mining Machinery Co., Milwaukee, Wis. Paper; 8 × 11 ins.; pp. 64; illustrated.

This is a combined catalog of the two companies named, illustrating a large number of gas power plants in the United States and in Mexico. Snow gas engines operating on producer, natural, illuminating, coke oven and blast-furnace gases are the product of the Snow Co. Systems for generating gas from bituminous and anthracite coal, coke, lignite and wood are put out by the Power & Mining Machinery Co. The plants pictured in this catalog are various combinations of this apparatus. There is little descriptive matter.

ELECTRIC MOTORS.—Crocker-Wheeler Co., Ampere, N. J. Bulletins 116, 117 and 118. Paper; 7½ × 10 ins.; illustrated.

A line of motor-generator sets for transforming from alternating to direct current for various services is the subject of the first bulletin. The general features of the design are shown for machines of all sizes.

The application of electric motors to laundry machinery is shown in Bulletin 117. The great feature of this application is its cleanliness. Motor-driven laundry machinery, of all sorts and descriptions, is pictured as in use in various plants throughout the country.

The last of these bulletins describes a type of small direct-current motors, brought out a few years ago, to meet all conditions requiring small power for belt or gear drives. These motors are furnished in sizes varying from 1/20 to 7½-HP. for 115 to 500-volt circuits. This bulletin describes the mechanical construction and electrical features. Ratings, weights and dimensions are given.

CONCRETE MIXERS.—Cockburn Barrow and Machine Co., 30 Church St., New York. Paper; 6 × 10 ins.; pp. 7; illustrated.

The Cockburn mixer is one of the more advanced forms of the cubical type. The catalog gives a number of illustrations of the machine with its power attachments, and explains the general construction of the mechanism.

SOLAR EPHEMERIS.—Keuffel & Esser Co., Hoboken, N. J.; paper; 3 × 5¼ ins.; pp. 44. The A. Lietz Co., San Francisco, Cal.; 3¼ × 5½ ins; pp. 16.

As is customary each year, the companies noted above have issued in small form the Solar Ephemeris for the year 1910. These little books are much more convenient for use in the field than any af the larger tables, and should therefore be a very necessary adjunct to the field kit.

STUCCO HOUSES.—Northwestern Expanded Metal Co., Old Colony Building, Chicago, Ill. Paper; 3½ × 6½ ins.; pp. 11; illustrated.

This company manufacturers a type of metal lathing known as the "Kno-Burn." The little pamphlet noted above gives the diffegent methods of applying this lathing to a frame house for the subsequent placing of concrete stucco.

CONCRETE FLOOR TEST.—Report of a Fire, Load and Water Test made upon Reinforced Cinder Concrete Floor Arches constructed by The Trussed Concrete Steel Co. at the Columbia University Fire Testing Station, New York City. Paper; 6 × 9 ins.; pp. 28; illustrated.

The heading noted above explains this pamphlet. It is one of a series of tests made by Prof. Woolson in cooperation with the City Building Bureaus.

STEEL SHEET PILING.—Jones & Laughlin Steel Co., Pittsburg, Pa. Folder. Paper; illustrated.

The Jones & Laughlin type of piling is a combination of the ordinary I-beam section and a clip tying together the flanges of the adjoining I-beams. This folder gives a table of the sizes and strengths in which the piling is manufactured.

CONCRETE FORMS.—Miracle Pressed Stone Co., Minenapolis, Minn. Paper; 6 × 9¼ ins.; pp. 22; illustrated.

The Miracle Co. has been manufacturing for some time a patented collapsible form which can be used for small arches, sewers and culverts. The form is essentially a cylindrical steel pipe in two overlapping half cylinders, with an interior striking device. The pamphlet gives views of the form in use and details of the method of its application.

THE SOLAR TRANSIT.—Keuffel & Esser Co., Hoboken, N. J.; stiff paper; 4½ × 6½ ins.; pp. 32; illustrated.

The Keuffel & Esser Co. have recently put on the market a new type of solar transit which, they claim, is not only more compact but more accurate than the old form of instrument. The little book noted above is a complete handbook for the proper use of this new instrument.

OIL FUEL BURNERS.—Hauck Manufacturing Co., 140 Cedar St., New York City. Pamphlet No. 30. Paper; 6 × 9 ins.; pp. 8; illustrated.

The Hauck portable burner produces an intense heat for welding and straightening machine parts on structural steel, shrinking and expanding tires, etc., and for preheating broken frames or castings in preparation for Thermit or autogenous welding processes. The pamphlet outlines some of its uses in car shops, boiler shops, pipe shops, machine shops and ship yards. Two types of burner are shown: one for shops with compressed air equipment which burns any grade of fuel, crude or kerosene oil, another "independent" type for kerosene only. Portable rivet forges and a bolt-heating furnace are also shown.

FUEL ECONOMIZERS AND AIR HEATERS.—B. F Sturtevant Co., Hyde Park, Mass. Catalog No. 150. Paper; 6 × 9 ins.; pp. —; illustrated.

In addition to the standard Sturtevant economizer for pressures below 200 lbs. per sq. in., this catalog describes a new high-pressure type. The high-pressure economizer has no gaskets. All joints are metal to metal, taper ground and forced together by hydraulic pressure. An automatic scraper mechanism is supplied with these economizers to keep the outside of the tubes free from soot deposits. It is said to be impossible for the scrapers to stick or bind. Several tables of interest in connection with economizers and mechanical draft are given, and in particular may be mentioned a table of the fuel saving effected in 14 actual economizer installations. The average fuel saving was 13%.

STEAM SUPERHEATERS.—Power Specialty Co., New York City. Stiff paper; 6 × 9 ins.; pp. 27; illustrated.

The peculiarities of the Foster design of superheaters are discussed in this monograph. The striking feature of this superheater is the use of a return-bend element consisting of straight, seamless, drawn tubes, on the outside of which are fitted a series of cast-iron annular gills or flanges placed close to each other and so fitted to the tube as to be practically a part of it. This exposes to the action of the heated gases a surface of cast-iron. Inside these elements are placed other tubes of wrought-iron, which are centrally supported by buttons spaced throughout their length. These inner tubes are closed at the ends so that a thin, annular passage is formed for the steam between the inner and outer tubes.

GARBAGE FURNACES.—Weber-Duller Co., Houston, Tex. Paper; 5¾ × 8¾ ins.; pp. 19; illustrated.

The garbage furnace described in this catalog is circular in plan and is provided with three grates, one above the other. The garbage is dumped through a feed chute onto an upper water-tube grate. Below this grate is the main grate, and below this is a secondary grate. It is claimed that no extra fuel is required for operation. The furnace walls are built of reinforced concrete and lined with fire-brick. The chimney, which is virtually a continuation of the furnace, is also of reinforced concrete, "built according to the Weber system." It appears that the first furnace of this type was built for the city of Houston, Tex., after plans by Mr. James A. Thompson, then in charge of the water, sewage and health departments of that city. Since then a plant has been built at Austin.

CONCRETE WORK.—Charles Warner Co., Wilmington, Del. Portfolios. Paper; 8 × 10 ins.; illustrated.

In rather novel form—a portfolio of loose leaves—the Warner Co. has issued here a series of photographs and instructions covering the proper use of concrete. The photographs were taken from a wide field of construction, and the text includes such matter as specifications for cement, for concrete blocks, for reinforced concrete, and a number of pages on practical notes for cement work. It is expected that additional pages will be issued so that they can be added to the portfolio as becomes necessary.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 36.

PIER IMPROVEMENT

Albany, N. Y.

Sealed proposals will be received by the Board of Contract and Supplies at its office in the City of Albany, N. Y. until 3 o'clock P. M., Monday, February 21, 1910, for the improvement of the State Street Pier, by constructing about 1300 lineal feet of concrete pier wall with boat landings on a foundation of wooden round piling and wooden sheet piling, concrete platforms and shelters, a lavatory, etc. For further particulars apply to the undersigned or Walter Willis, City Engineer. A deposit of $10 is required for plans and specifications.

Dated Albany, N. Y., January 25, 1910.

ISIDORE WACHSMAN,
Secretary.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., January 24, 1910.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 14th day of March, 1910, and then opened for the extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring, and standard clock system), of the United States Post Office and Court House at Frankfort, Ky., in accordance with the drawings and specification, copies of which may be had from the Custodian at Frankfort, Ky., or at this office at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

U. S. ENGINEER OFFICE, Dallas, Tex., Jan. 28, 1910.—Sealed proposals for Iron and Steel delivered at Herrington, Tex., on Gulf, Colorado & Santa Fe Railway, will be received here until 12 M., Mar. 5, 1910, and then publicly opened. Information furnished on application. A. E. WALDRON, Capt., Engrs.

Situations Wanted

ESTIMATOR (29), seven years' experience in structural and ornamental estimating, also in the designing and contracting of structural steel work, desires change of position; preferably with general contractor. Address "R. B. 4," Engineering News, New York. 4-1t

Situations Open

COMPETENT FOREMAN for dock building; hustler. Give references, age, salary; steady work for right man. Address "W. B. 4," Engineering News, New York. 4-1t

A MACHINE SHOP foreman can secure a good position by advising the undersigned. We require the applicant to be a first-class mechanic, to have had previous experience as a foreman and to be young enough to adapt himself to the peculiar requirements of our business, located in Cincinnati. When applying, state fully age, previous experience, where at present employed and salary desired. Address "S. B. 4," Engineering News, New York. 4-2t

WANTED—Technical graduate, thoroughly familiar with estimating of steel structures of all classes. State experience and reference. Address "X. B. 4," Engineering News, New York. 4-1t

FOR SALE

ASSIGNEE'S SALE

1—25-HP. Geiser Traction Engine (New October, 1909).
1—12 × 24 Reliance Crusher with Elevator and Screen.
1—10 × 18 Fort Wayne Crushing Plant.
1—9 × 15 Champion Crushing Plant.
1—1 yd. Cube Mixer with Engine.
1—¾ yd. Cube Mixer with Engine.
5—D. C. D. D. Hoisters with Boilers.
Also Boilers, Engines, Derricks, 30-lb. Relayers and complete contractor's plant. Bargains. 4-3t

McKELVEY MACHINERY CO., INC.,
Phone 4886 6 Albany St., N. Y. City.

ELECTRICAL MATERIAL D. C.

110-volt, ½-HP. Eddy Motor; 15-KW. Thompson-Houston Generator; 25-KW. Westinghouse Generator; 40-KW. Edison Generator; 220-volt, 5-HP. Eddy Motor; 220-volt, 7½-HP. General Electric Motor; 250-volt Thompson Ryan Generator direct connected to 11 × 10 McEwen Automatic Engine. Lots of other bargains in Engines, Boilers, etc. SUPPLY HUNTINGTON MACHINERY & SUPPLY COMPANY, Rymans Lumber Yard, Wilkes-Barre, Penna. 4-1t

WE SUPPLY
BOOKS ON ANY SUBJECT
Engineering News Book Department

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

	Noted in issue of
2- 1Hydraulic equip., Midland, Ont.	1-27
2- 2*Conduit, Chicago, Ill.	1- 6
2- 5*Insul. cable, New London, Conn.	1-13
2- 8 Elec. fixtures, New York.	1-27
2-10 Light fixtures, Eugene, Ore.	1-27
2-10 Light fixtures, Sheridan, Wyo.	1-27
2-15*Equipment, Winnipeg, Man.	12-30
2-17 Elec. light plant, Erie, Kan.	1-27
2-21*Power plant, Tacoma, Wash.	1-27

Bridges.

1-28 Bridge work, Columbus, Ohio.	**1-13**
1-29 Bridges, Fullerton, Neb.	1-27
1-31 Bridge, Minneapolis, Minn.	1-20
1-31 Bridge, Bryan, Ohio	1-27
2- 1 Bridge, Westbrook, Conn.	1-20
2- 2 Bridge work, Baltimore, Md.	1-27
2- 5 Bridge work, Cleveland, Ohio.	1-20
2- 7 Bridge, Topeka, Kan.	1-27
2- 8 Bridges, Salinas, Cal.	1-27
2- 8 Bridge work, Oak Harbor, Ohio.	1-20
2- 8 Bridge, Bristol, Va.	1-20
2- 9 Bridge bonds, Dayton, Ohio.	1-20
2- 9 Bridges, Edina, Mo.	1-27
2-10*Bridge, Reading, Pa.	1-27
2-16 Bridge work, Cleveland, Ohio.	1-27
2-23 Bridge, Washington, Pa.	1-27

Buildings.

1-27 Engine house, Wash., D. C.	1-27
1-31 Barracks, Philadelphia, Pa.	**1-13**
1-31 Jail, Puente, Cal.	1-13
2- 1 Cottages, Storrs, Conn.	1-13
2- 1 Plans, New Westminster, B. C.	1-13
2- 1 Church, Norwood, Ohio.	1-13
2- 1 Plumbing, New York	1-27
2- 1 Court-house, Kenora, Ont.	1-27
2- 3 Supplies, New York	1-27
2- 3 Panels, New York, N. Y.	1-27
2- 7*Bell tower, Red Bank, N. J.	1-20
2- 7 Quarters, Hot Springs, Ark.	1-13
2- 7 Prison, Stillwater, Minn.	12-30
2-15 Post-office, Emporia, Kan.	1-13
2-16 Refrig. mach., Ft. Bayard, N. Mex (Mfg. Pl.)	1- 6
2-17 Quarters, Boise, Idaho	1-27
2-18*Post-office, Henderson, N. C.	1-20
2-18*Laundry, etc., Louisville, Ky.	1-20
2-19 Quarters, Bremerton, Wash.	1-13
2-21*Post-office, Pawtucket, R. I.	1-20
2-22 Building, Manhattan, Kan.	1-27
2-24 Post-office, Rock Island, Ill.	12-30
2-25*Post-office, Goldsboro, N. C.	1-27
3- 3*Post-office, Lynchburg, Va.	1-27
3- 1 Post-office, Hot Springs, Ark.	1- 6
3- 2 Post-office, Meridian, Miss.	1-20
3- 4 Post-office, Lead, S. Dak.	1-27
3- 9 Post-office, Athens, Ga.	1-27
3-15*Post-office, Denver, Colo.	1-27

Water-Works.

1-28 Standpipe, etc., Weatherford, Okla	**1-13**
1-28 Valves, etc., Minneapolis, Minn.	**1-13**
1-31 Filter plant, Tacoma Park, D. C.	1-20
2- 1 Main, Waterbury, Conn.	1-20
2- 1 Sed. basins, etc., Ardmore, Okla.	1- 6
2- 2 Settling basin, etc., Kansas City, Kan	1-27
2- 4 Aqueduct, Salt Lake City, Utah.	1-27
2- 5 Irrigation bonds, Delta, Colo.	1-27
2-14 Lining reservoirs, Fort Mackenzie, Wyo	1-27
2-15 Water-works, Midland, Tex.	1- 6
2-16 Dam, etc., Dallas, Tex.	1-27
2-17*Pumping station, Burlington, Iowa	1-27
2-17*Pumping engines, Poughkeepsie, N. Y	1-27

Sewers.

1-28 Sewers, Weatherford, Okla.	1-20
1-28 Sewer system, Traer, Iowa.	1-20
2- 1 Sed. basins, Ardmore, Okla.	1- 6
2- 1*Sewer, Summit, N. J.	1-27
2- 1 Sewer, Toledo, Ohio	1-27
2- 1 Sewer, Philadelphia, Pa.	1-27
2- 2 Sewer materials, Cambridge, Mass	—
2- 2 Conduit, Chicago, Ill.	1-13
2- 3*Sewage pump station, El Paso, Tex	1-13
2- 4 Sewers, Salt Lake City, Utah.	1-27
2- 7 Sewers, Louisville, Ohio.	1-20
2- 8 Sewer, etc., Canby, Minn.	1-27
2- 9*Sewers, Baltimore, Md.	1-13
2-11 Sewer, St. Louis, Mo.	1-13
2-11 Sewers, St. Louis, Mo.	1-27
2-14 Sewer, Washington, N. J.	1-27
2-15*Sewer outlet, etc., Toronto, Ont.	12-23
2-16*Sewer system, Lawton, Okla.	12-30
2-18 Sewers, Hebron, Neb	1-27
2-19 Drain, Charleston, S. C.	1-27

Streets and Roads.

1-29 Paving, Lincoln, Neb.	1-20
1-29 Roads, Marysville, Ohio.	1-20
1-29 Paving, Charleston, S. C.	1-13
1-29 Crushed stone, Bexley, Ohio.	1-27
1-31 Street repair, Boston, Mass.	1-27
2- 1 Asphalt plant, Spokane, Wash.	1-20
2- 1 Road, Princess Anne, Md.	1-20
2- 2 Paving, Raleigh, N. C.	1-27
2- 3 Street impvt., Pekin, Ill.	1-27
2- 5 Roads, etc., Jefferson B'ks, Mo.	1-27
2- 7 Roads, Gibson, N. C.	1-27
2- 7 Paving, Mt. Pleasant, Mich.	1-27
2- 7 Road, St. Paul, Minn.	1-20
2- 7 Macadam, Kentland, Ind.	1-20
2- 8 Paving, etc., Norfolk, Va.	1-20
2- 8 Roads, Monticello, Ind.	1-20
2- 9 Gravel road, La Fayette, Ind.	1-27
2- 9 Paving and supplies, New York.	1-27
2-11 Street impvt., Cincinnati, Ohio.	1-20
2-14*State roads, Albany, N. Y.	1-27
2-16*State roads, Albany, N. Y.	1-27
2-18*State roads, Albany, N. Y.	1-27
3- 1 Driveways, etc., Moline, Ill.	1-13
3-15 Roads, Gordon, Ala.	1-13

Miscellaneous.

1-28 Cement, Ottawa, Ont.	1-20
1-29 Ditch, Tampico, Ill.	1-20
1-29 Railing, Boston, Mass.	1-13
1-29 Ditch, Indianapolis, Ind.	1-27
1-29 Ditch, Marion, Ind.	1-27
2- 1 Railway, Portage, Wis.	1-27
2- 1 Levee, Marksville, La.	1-27
2- 1 Monuments, Ottawa, Ont.	10-21
2- 2 Tile drain, Des Moines, Iowa.	1-20
2- 3 Ditch, Fort Dodge, Iowa	1- 6
2- 3 Ditch, Hartford City, Ind.	1-13
2- 5 Ditch, Smartville, Cal.	1-13
2- 7*Valve chambers, etc., Panama.	1-13
2- 8 Snow removal (garbage), New York	1-27
2- 9 Ditches, Madison, Minn.	1-27
2- 9 Levee, Woodson, Ark	1-27
2-10 Rifle range, Blauvelt, N. Y.	1-27
2-10 Light vessel, Wash., D. C.	1-27
2-14 Canal, Oklahoma City, Okla.	1-27
2-15 Coal handling plant, N. Chicago, Ill	1-27
2-15 Torpedo boats, Washington, D. C.	12-23
2-16 Barge canal, Albany, N. Y.	1-27
2-21*Earth work, Colo. Springs, Colo.	1-27
2-28*Incinerating plant (garbage), Lynchburg, Va	1-27
2-28 Fence, gates, Winnipeg, Man.	1-27
3- 7 Ditches, Eldora, Iowa	1-27
4-30 Ditch, Olivia, Minn.	12-23

Examinations.

At once City engr., Moose Jaw Sask.	1-27
2- 2 Engr. and Plumber, Wash., D. C.	1- 6
2- 2 Junior topographer, Wash., D. C.	1-20
2- 2 Asst. assayer, Kansas City, Mo.	1-20
2-16 Computer, Philippines	1-20
2-16 Hydraulic engr., Wash., D. C.	1-20
2-16 Topographic aid, Wash., D. C.	1-20
2-16 Asst. geologist, Wash., D. C.	1-20
2-21 Rodman, New York	1-20
2-28 Transitman, New York	1-20
3- 3 Junior chemist, Wash., D. C.	1-27
3- 9 Topographic draftsmen, Wash., D. C	1-27

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 229 Broadway, New York.

Bids close.	Work.	See issue.
1-29	Railing, Boston, Mass. (S.)	1-13
1-29	Paving Charleston, S. C. (S.)	1-13
2- 5	*Insulated cable, New London, Conn. (S)	1-13
2-15	Coal-handling plant, N. Chicago, Ill (S)	1-27
2-19	Drain, Charleston, S. C. (S)	1-27
2-19	Quarters, Bremerton, Wash. (S.)	1-13
2-21	*Power plant, Tacoma, Wash. (P. & S.)	1-27